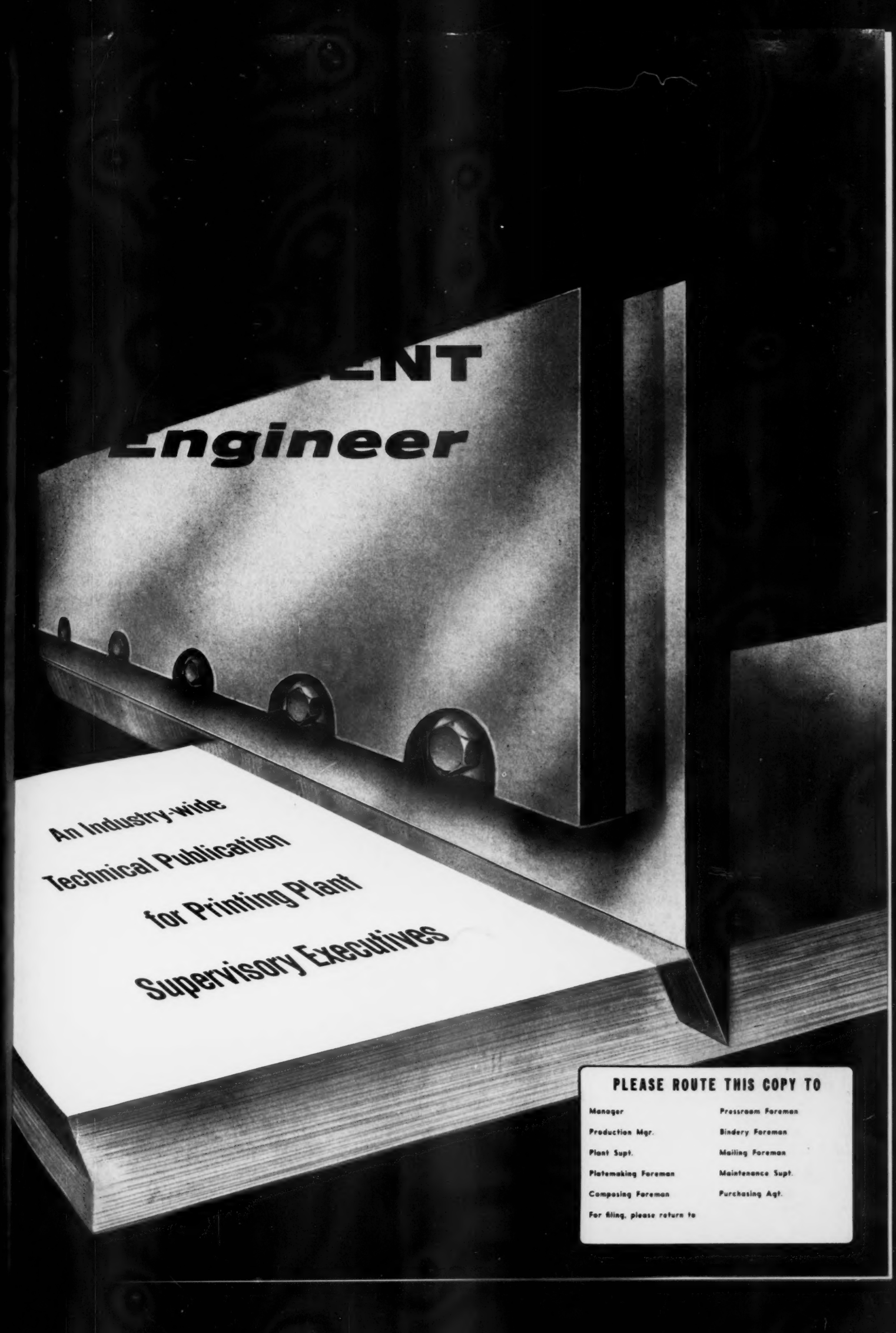
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An Industry-wide
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for Printing Plant
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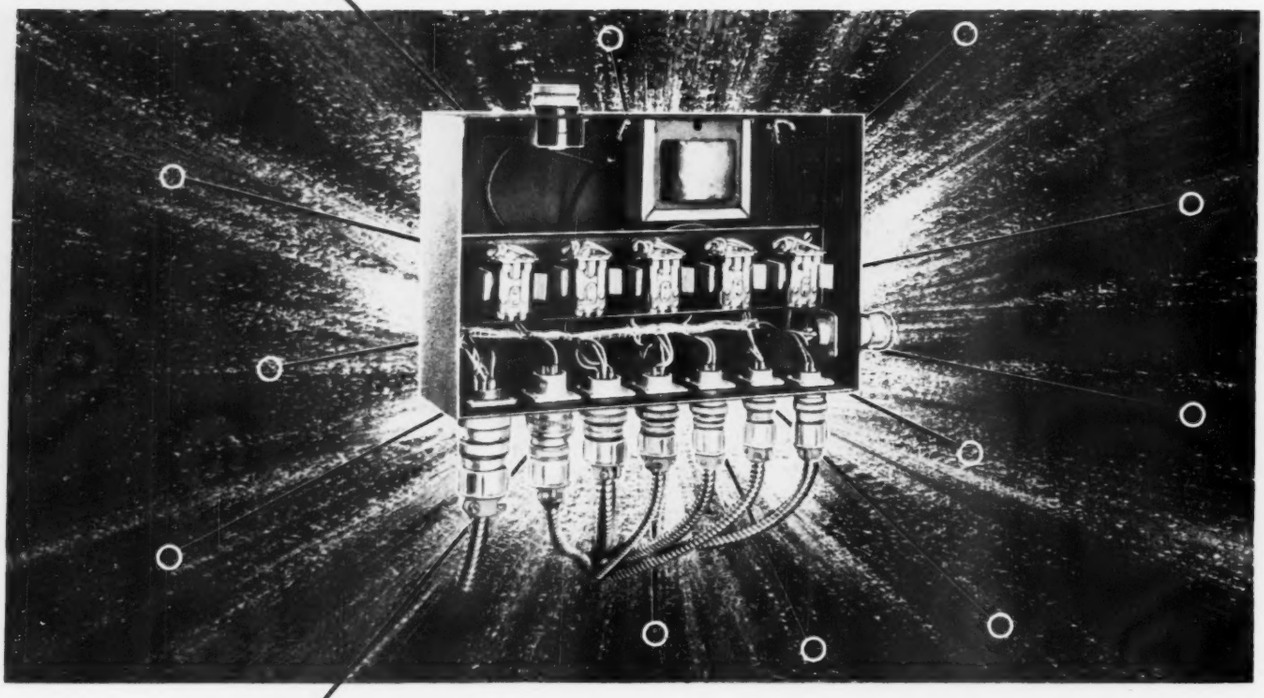
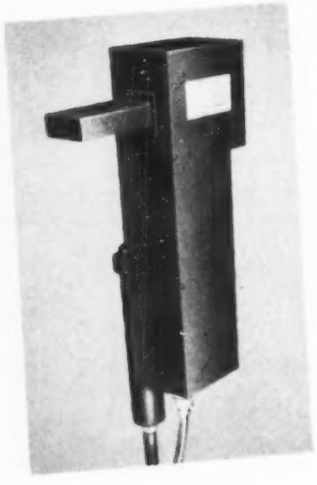
The Star Selecto-Matic Quadder



Memory Circuit

PERMITS CONTINUOUS OPERATION



By means of this memory system, three lines can be stored at one time in the linecasting machine. The operator never has to wait for a line to clear the casting position before pushing another button on the selector. One line may be in the casting position, a second waiting in the delivery channel, while the third is being assembled.

More details on this interesting development are yours for the asking in a new folder describing, in detail, the Selecto-Matic Quadder — write for it today.

LINOTYPE PARTS
Company, inc.

SOUTH HACKENSACK, N. J.

BRANCH: 1327 BROADWAY, KANSAS CITY, MO.

AGENCIES: CHICAGO · MINNEAPOLIS

LOS ANGELES · DENVER · BOSTON CANADA: SEARS LTD. *and Foreign Countries*

Precision TRADE ★ MARK *Parts*

"IMPROVED" is the word for the Sta-Hi Master Former...

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We make no "yearly model changes" at Sta-Hi... We add no chrome or polished push buttons just to claim we have something "new"...

Product improvement is a constant process with us. As ways are found to improve the efficiency of Sta-Hi machinery they are incorporated into the equipment at once, be it June or January...

Customers suggest these improvements to us, our sales representatives come up with ideas, our own continuing field engineering surveys indicate the need for changes—and we make them, now...

That is why the Master Former currently being manufactured and delivered is acclaimed as the very finest dry mat processing equipment of its kind in the world... That is why more than 1200 of these machines are on the job day and night in progressive newspaper plants—doing a precision job, saving valuable production time and money... making possible a better printed product.

STA-HI

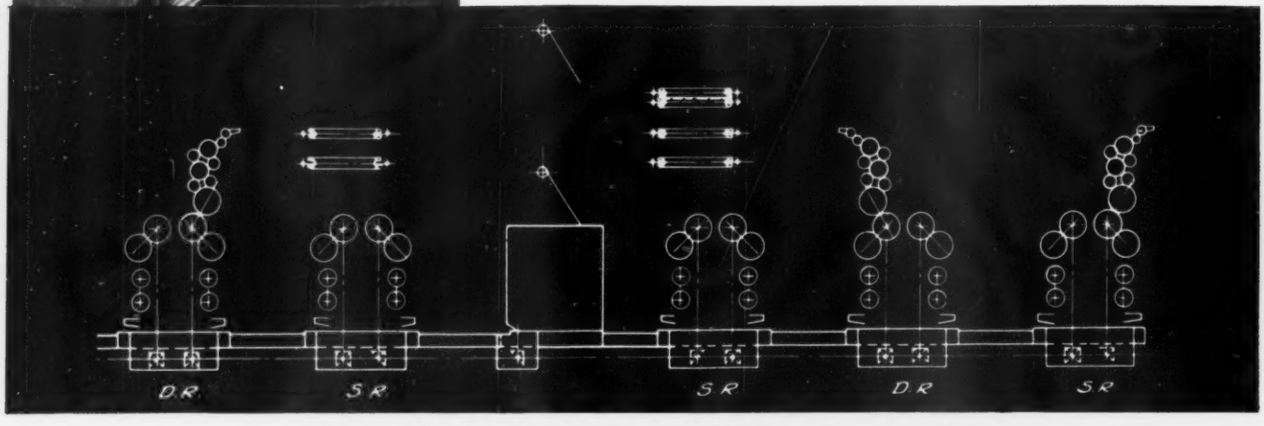
...your best buy

STA-HI CORPORATION, BOX 152, WHITTIER, CALIFORNIA

"No doubt about it--

COLOR - with SCOTT PRESSES

has the punch that advertisers want"



One Example of Equipment for Variable Color Page Location

The above diagram shows a press equipped to enable any two adjacent units to print 4 colors on either side of one web and allowing the turning over of one-half of the web when desired to vary the color page location.

NEWSPAPER admen are hailing COLOR as the most effective linage booster on the newspaper scene today. Advertisers welcome the opportunity to put punch into "tired" black-and-white presentations, and newspapers offering ROP color report substantial and consistent gains each year.

It is of vital importance, however, that the color equipment employed will reproduce full-tone, perfect-register color at high speed newspaper production. For although the use of color is still attractive as a novelty to many advertisers, they may be expected to become more critical of printed results as this development comes into wider use.

SCOTT'S experience in designing and building color equipment for newspapers extends over so many years that SCOTT leadership in this field has been long-established. For excellence of color printing at high speed — for greatest diversification — flexibility of color positioning — adaptability to conditions of the individual newspaper pressroom, SCOTT equipment stands alone.

Write today for the booklet describing the outstanding advantages of SCOTT printing units when employed to add color to newspapers by either of the two basic methods.

Buy with CONFIDENCE - - - Buy SCOTT

WALTER SCOTT & CO., INC.

PLAINFIELD, NEW JERSEY

5-54-3

Biggest Harris press ever built prints five colors in accurate register

...with the help of TIMKEN® bearings

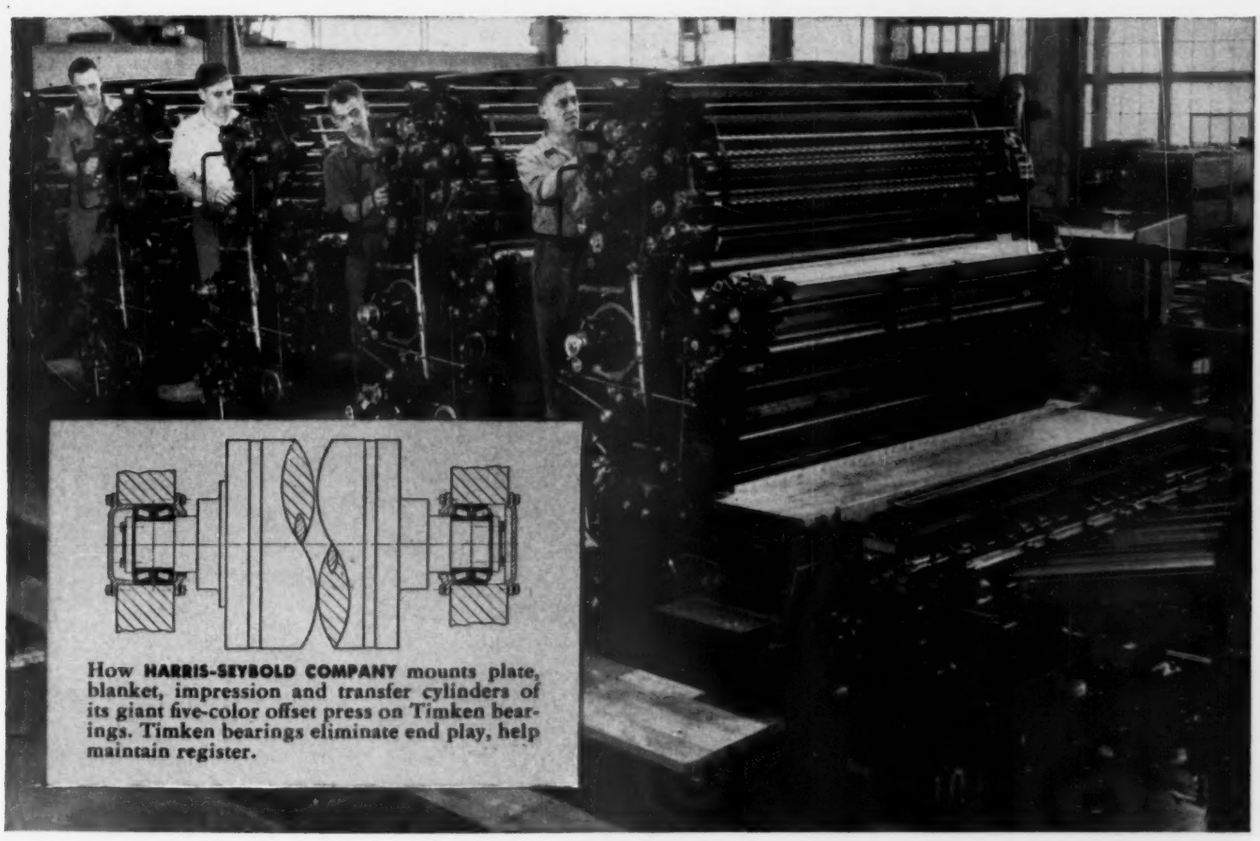
HARRIS-SEYBOLD helped maintain register in this giant 5-color offset press by mounting the cylinders on Timken® tapered roller bearings. The taper makes it possible to completely eliminate cylinder end play. Timken bearings take *both* radial and thrust loads in any combination.

At final assembly the bearings are adjusted so that no sidewise movement of the rollers is possible. Not even temperature changes will cause lateral movement.

This 5-color press, installed in Stecher-Traung Lithograph Corp.'s San Francisco plant, is the largest of its kind ever built by Harris-Seybold. It's fast, too. There are no speed restrictions due to bearings. The precise rolling motion of Timken bearings, and their incredibly smooth surface finish, practically eliminate the friction which creates heat, Low friction can also substantially reduce the inching load and cut power bills.

With Timken bearings, the lubrication systems of presses are simplified and maintenance is reduced. No other bearing gives you ALL the advantages of Timken bearings. Look for the trade-mark "Timken" on every machine you build or buy. The Timken Roller Bearing Company, Canton 6, Ohio. Canadian plant: St. Thomas, Ontario. Cable address: "TIMROSCO".

This symbol on a product means its bearings are the best.

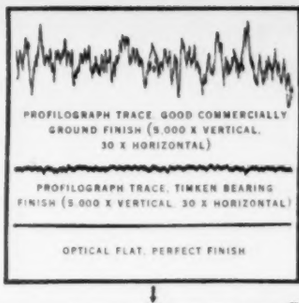


How **HARRIS-SEYBOLD COMPANY** mounts plate, blanket, impression and transfer cylinders of its giant five-color offset press on Timken bearings. Timken bearings eliminate end play, help maintain register.

TIMKEN

TRADE-MARK REG. U. S. PAT. OFF.

TAPERED ROLLER BEARINGS


PROFILOGRAPH TRACE, GOOD COMMERCIALLY GROUND FINISH (5,000 X VERTICAL, 30 X HORIZONTAL)
PROFILOGRAPH TRACE, TIMKEN BEARING FINISH (5,000 X VERTICAL, 30 X HORIZONTAL)
OPTICAL FLAT, PERFECT FINISH

SMOOTH TO MILLIONTHS OF AN INCH

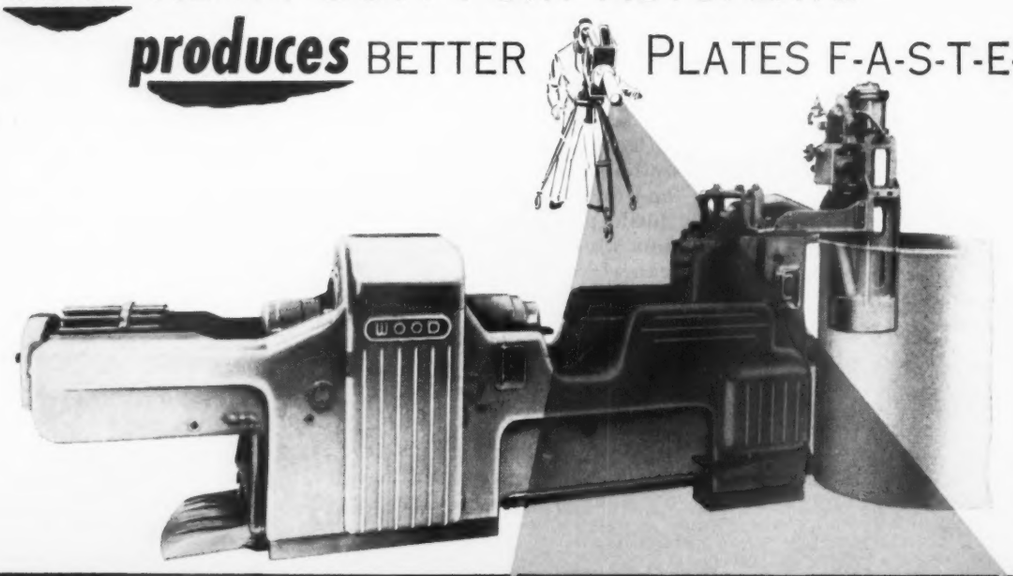
Surface finish of high quality Timken bearing rollers and races is so smooth that it takes a profilograph to measure its smoothness. This instrument measures surface variations to a millionth of an inch, as shown at the left.

NOT JUST A BALL ○ NOT JUST A ROLLER ⬭ THE TIMKEN TAPERED ROLLER ⬭ BEARING TAKES RADIAL ↓ AND THRUST →○← LOADS OR ANY COMBINATION →✳←

1 of 6 reasons why

THE **NEW** HEAVY DUTY PONY AUTOPLATE

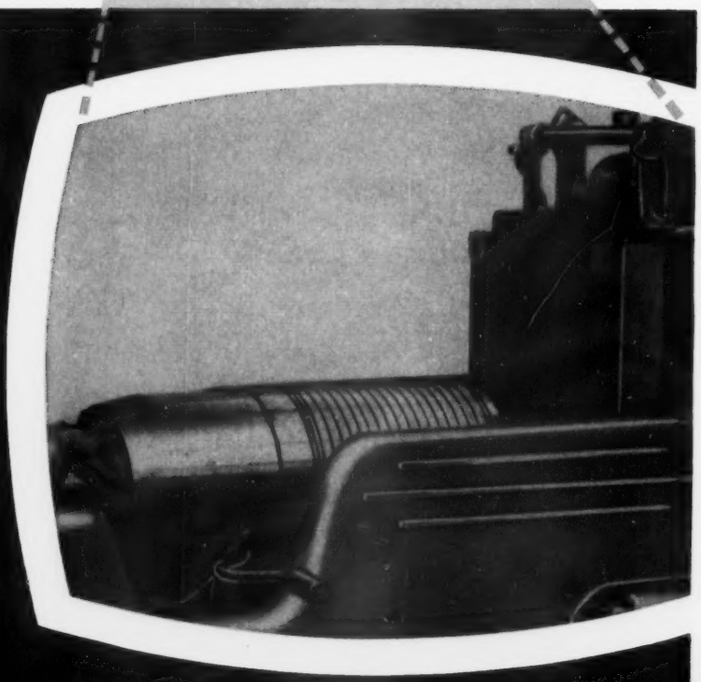
produces BETTER PLATES F-A-S-T-E-R



REASON #2

WATER-COOLED CORE AND CASTING BOX

Automatic, adjustable water temperature controls of Core and Casting Box maintain the desired degree of temperature . . . Core lockup mechanism enclosed for protection against metal spills and foreign matter.



IF IT'S Wood IT'S GOOD

WOOD NEWSPAPER MACHINERY CORPORATION

PLAINFIELD, NEW JERSEY

EXECUTIVE AND SALES OFFICE: 501 FIFTH AVENUE, NEW YORK 17, N. Y.

PRINTING EQUIPMENT *Engineer*

January 1955

An industry-wide technical magazine published especially for management, production and mechanical executives responsible for printing production and the specification of equipment and supplies used in the commercial, magazine, private plant and daily newspaper fields.

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EDITORIAL STAFF

MacD. Sinclair, Editor

Adam Henry Reiser
Associate Editor

Edward H. Owen
Assistant Editor

BUSINESS STAFF

Don Will, Publisher

William L. Osborn, Eastern Advertising Representative, 1712 Grand Central Terminal, New York 17, New York. Phone: MUrray Hill 6-5980.

Melburn O. Simmons, Mid-West Advertising Representative, 333 North Michigan Ave., Chicago 11, Ill. Phone: DEarborn 2-6467.

George Gell, Central District Advertising Representative, 1276 W. Third St., Cleveland 13, Ohio Phone: PRospect 1-0088.

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It's Huber for ROP Colors

Tailored to Your Needs

Our representative will help you work out your requirements

J. M. Huber Corporation

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"Some Reasons Why Printers Prefer Ludlow"

That's the title of the big 32-page booklet we have recently completed. It outlines in detail some outstanding Ludlow advantages and operating economies which you should know about.

This big booklet graphically illustrates and describes the way in which the Ludlow helps to solve such printing plant problems as type shortages, type breakage, scarcity of spacing material, excessive press make-ready, press work-ups, congested floor space, multiple forms, and ruleform composition—to mention just a few.

As you go through this booklet you will realize some of the reasons why so many progressive printing and publishing firms, specialty printers and others have discarded the old, time-honored typesetting methods and have changed to the improved Ludlow system of all-slug display and job composition.

Send for your free copy of this big 32-page booklet—it will give you a better understanding of Ludlow's contribution to efficient composing room production. It is real information for you.

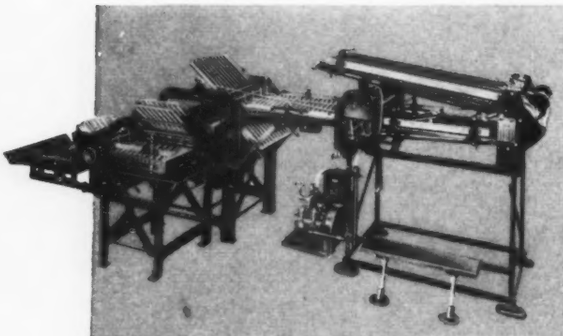
LUDLOW TYPOGRAPH COMPANY

Set in members of the Ludlow Tempo family

2032 Clybourn Avenue, Chicago 14, Illinois

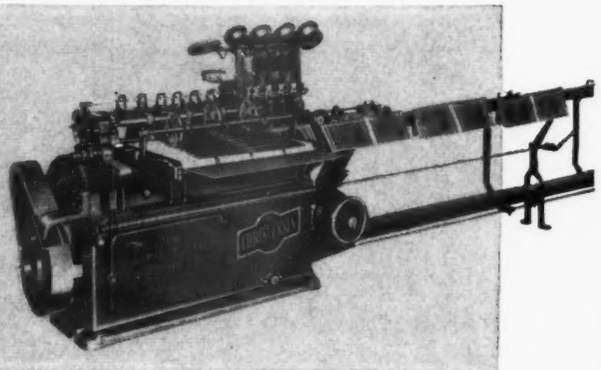
DEXTER

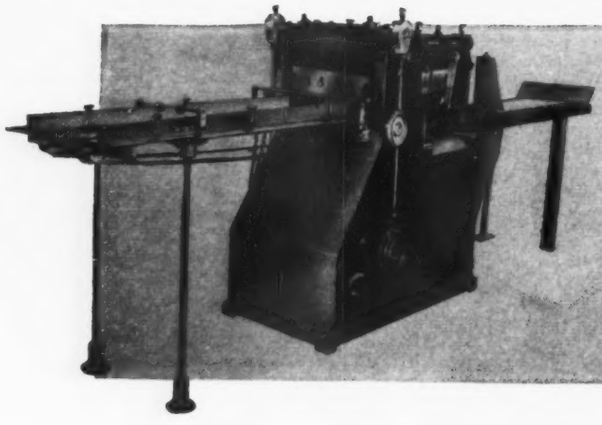
Profits from Pamphlets!



FOLDING is the first step in achieving profits from pamphlets . . . and Cleveland Folders, available in a wide range of sizes, are the standard of the industry. Precision-built, of top quality materials and workmanship, every Cleveland is designed for many years of high-quality, high-speed production.

GATHERING & STITCHING of folded signatures is the next step to bindery profits. The Christensen Gang Stitcher, in the model best suited to your needs, will gather and saddle stitch as fast as operators can feed it . . . up to 7500 books or gangs per hour with McCain Automatic Feeders . . . with unvarying accuracy and reliability.





TRIMMING with the McCain Automatic 3-knife Trimmer not only increases profits but saves floor space and handling expense. Untrimmed books from the Christensen Gang Stitcher are automatically conveyed to the McCain Trimmer where 3 sides are trimmed, and finished books delivered ready for wrapping or packing. Books can be trimmed at speeds up to 7500 per hour. Attachments are available for cutting apart books stitched two-up or with bleed trim.

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General Sales Office

330 West 42nd Street New York 36, N. Y.

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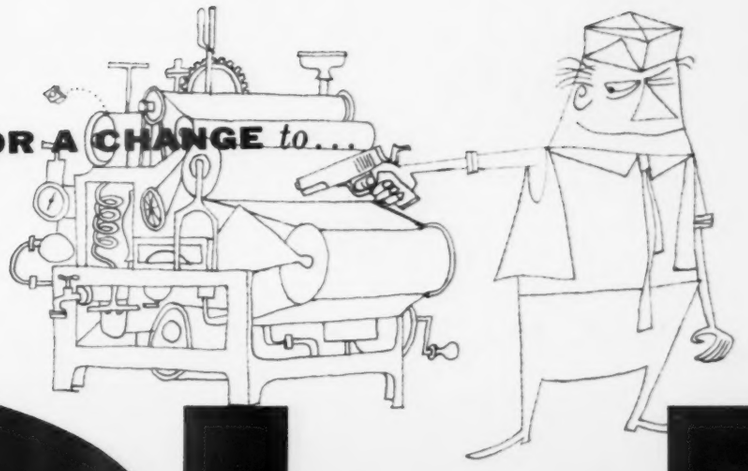
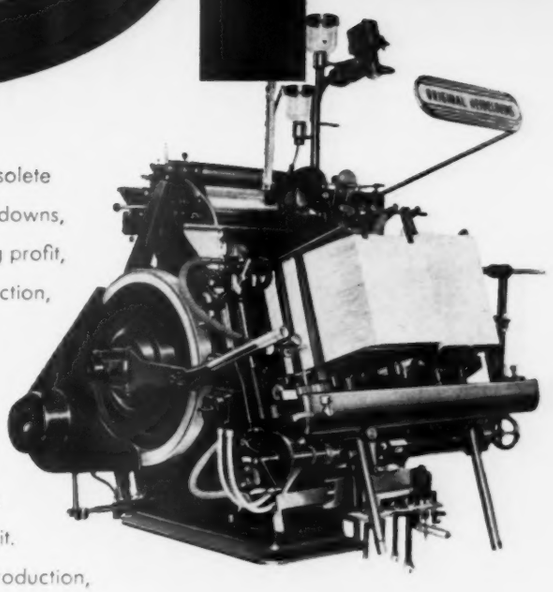


original *heidelbergs*



If you're plagued with obsolete printing equipment, breakdowns, lack of service, diminishing profit, overwork and poor production, then... HEIDELBERG IS THE ANSWER!

Today, you must operate the best possible equipment to insure profit. With Heidelberg, you get it. Heidelberg means more production, less down time, and *plus profit.* All at a price any printer can afford — in 10 x 15 and 12 x 18 sizes.

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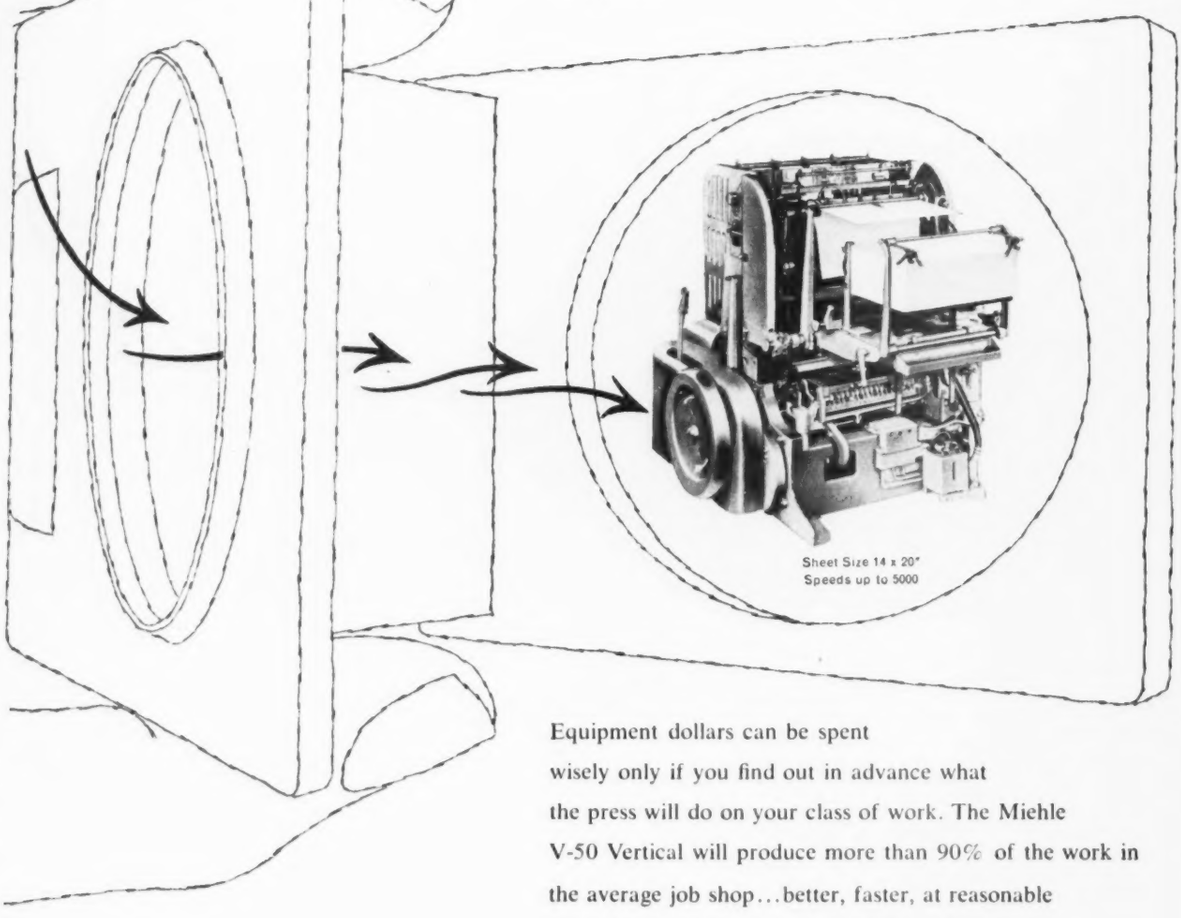

Equipment dollars can be spent wisely only if you find out in advance what the press will do on your class of work. The Miehle V-50 Vertical will produce more than 90% of the work in the average job shop...better, faster, at reasonable cost. Now is the time to investigate the Vertical before you invest in any more press equipment.

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Chicago 8, Illinois

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NEW OXY-DRY SPRAYER

AM
MANAGER
PAYABLE

message to be sent via fastest available service and deliv

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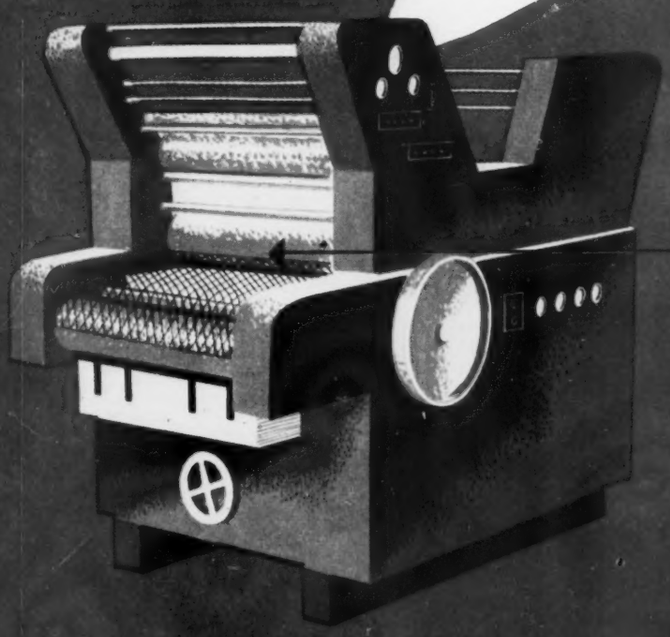
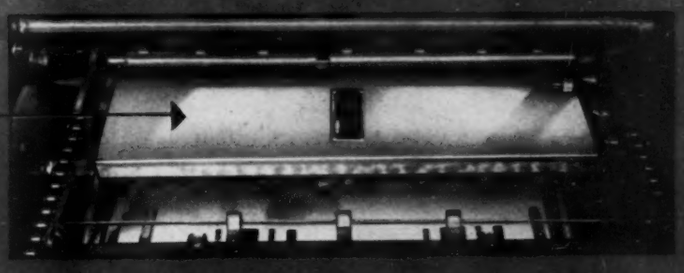
NOW OXY-DRY SPRAYERS ARE
AVAILABLE TO FIT ALL SMALL
PRESSES FROM 17 x 22 ON UP

REPEAT 17 x 22 OXY-DRY SPRAYERS





THE PERFECT INK OFFSET PREVENTION YOU HAVE ALWAYS WANTED FOR PRESSES 17" X 22" AND LARGER

For the first time you can have the famous OXY-DRY dry-sprayer for presses as small as 17" x 22". It's new! It's here! It's perfected! For operators of all offset presses from 17" x 22" on up this means increased production, lower costs, improved work and much less maintenance and supply cost. For complete details send in coupon below, or write to our Chicago office today.

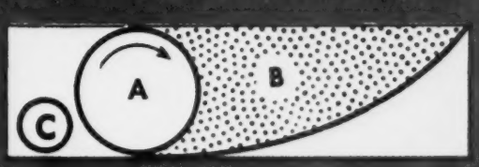
OXY-DRY SPRAYER

- Uniform offset prevention on all types of work.
- Metered powder control.
- Eliminates static electricity from sheets.
- Permits full level press loads.
- Self contained—self powered.
- More economical.

OXY-DRY SPRAYER CORPORATION

New York, CHICAGO, San Francisco
Dept. PE, 320 So. Marshfield Ave., Chicago 12, Ill.

HOW OXY-DRY SPRAYER OPERATES



At micronically etched chromium cylinder A revolves, Oxy-Dry anti-offset powder B is distributed past electronic tube C receiving 10,000 volt positive charge that causes powder to bond instantly to press sheets at any speed. Static electricity (negative charge) on paper is instantly dispelled. Cylinder revolution speed controlled by metered setting of self powered OXY-DRY sprayer motor and gear-box.

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Please send information to us about the new speed point OXY-DRY sprayer units.

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Company _____
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Packed with benefits for you... Ansco Reprolith Ortho Type B Film

Reprolith Ortho Type B saves time in your shop because its high speed permits shorter exposures in the camera, and in printing frames.

Full orthochromatic sensitivity permits the use of filters to improve rendition of copy, resulting in less hand work on negatives.

In addition, Reprolith Ortho Type B gives you high resolving power . . . wide developing latitude . . . fine dot etching qualities . . . steep gradation . . . and greater clarity in white areas.

Let these advantages help widen your profit margin. Standardize on Ansco Reprolith Ortho Type B Film in your shop.

Develop in Ansco Reprodol for finest results. Reprodol is the modern graphic developer that produces maximum density and high contrast. Supplied in units making two and 10 gallons of solution.

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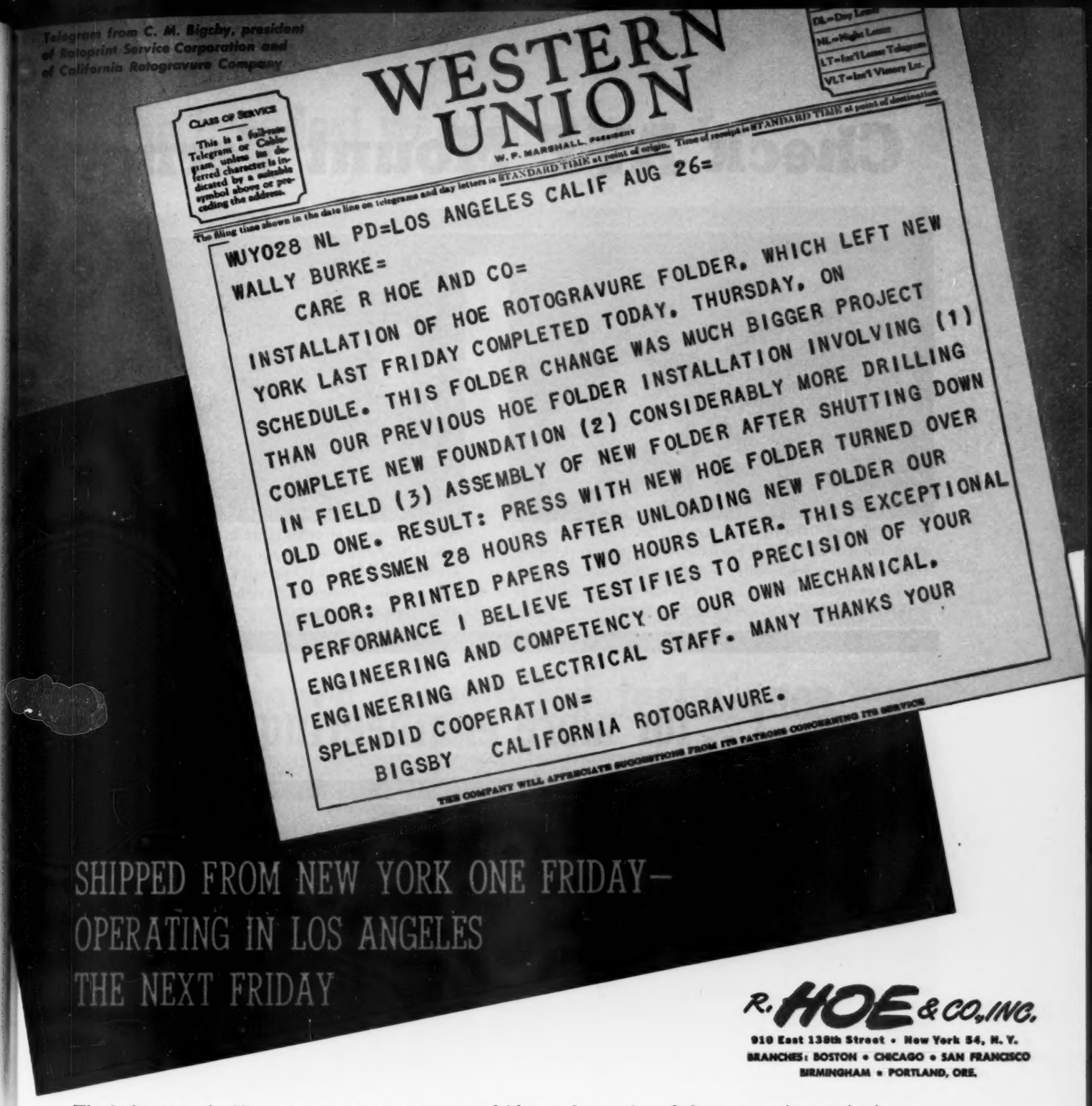
In the Graphic Field It's Ansco


Telegram from C. M. Bigsby, president of Rotoprint Service Corporation and of California Rotogravure Company
WESTERN UNION
W. P. MARSHALL, PRESIDENT
CLASS OF SERVICE
This is a fullrate Telegram or Cable-gram, unless its deferred character is indicated by a suitable symbol above or preceding the address.
DL=Day Letter
NL=Night Letter
LT=Int'l Letter Telegram
VLT=Int'l Vessey Ltr.
The filing time shown in the date line on telegrams and day letters is STANDARD TIME at point of origin. Time of receipt is STANDARD TIME at point of destination
WUY028 NL PD=LOS ANGELES CALIF AUG 26=
WALLY BURKE=
CARE R HOE AND CO=
INSTALLATION OF HOE ROTOGRAVURE FOLDER, WHICH LEFT NEW YORK LAST FRIDAY COMPLETED TODAY, THURSDAY, ON SCHEDULE. THIS FOLDER CHANGE WAS MUCH BIGGER PROJECT THAN OUR PREVIOUS HOE FOLDER INSTALLATION INVOLVING (1) COMPLETE NEW FOUNDATION (2) CONSIDERABLY MORE DRILLING IN FIELD (3) ASSEMBLY OF NEW FOLDER AFTER SHUTTING DOWN OLD ONE. RESULT: PRESS WITH NEW HOE FOLDER TURNED OVER TO PRESSMEN 28 HOURS AFTER UNLOADING NEW FOLDER OUR FLOOR: PRINTED PAPERS TWO HOURS LATER. THIS EXCEPTIONAL PERFORMANCE I BELIEVE TESTIFIES TO PRECISION OF YOUR ENGINEERING AND COMPETENCY OF OUR OWN MECHANICAL. ENGINEERING AND ELECTRICAL STAFF. MANY THANKS YOUR SPLENDID COOPERATION=
BIGSBY CALIFORNIA ROTOGRAVURE.
THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE
SHIPPED FROM NEW YORK ONE FRIDAY—
OPERATING IN LOS ANGELES
THE NEXT FRIDAY
R. HOE & CO., INC.
910 East 138th Street • New York 54, N. Y.
BRANCHES: BOSTON • CHICAGO • SAN FRANCISCO
BIRMINGHAM • PORTLAND, ORE.

That's the story of a Hoe newspaper type rotogravure folder — and of what can be achieved by close cooperation between press manufacturer and printer to meet the publisher's deadline.

The California Rotogravure Company, of Los Angeles, a division of Rotoprint Service Corporation, prints the Home Magazine of the *Los Angeles Times.*

In July, 1952, the California Rotogravure Company purchased a Hoe folder to replace folding equipment not made by Hoe. So satisfactorily did this folder operate that a duplicate folder was ordered from Hoe last July.

In order to meet a deadline for printing the Home Magazine, the installation had to be planned for conditions that required the most careful preparation, engineering and attention to details, with close cooperation between the manufacturer's and the customer's organizations.

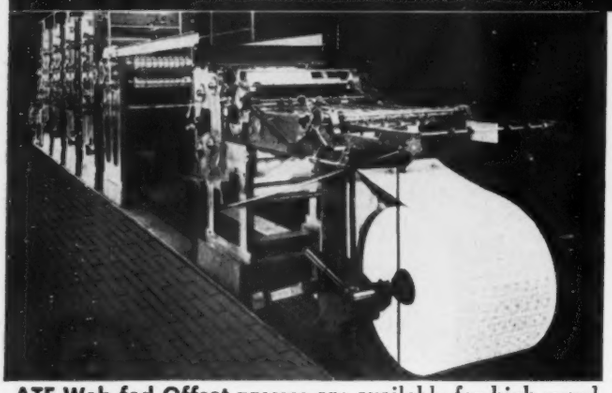
The Rotogravure Company spared no effort in double-checking with Hoe on the fitting and attaching work. Then just as soon as the construction of the folder was finished in the Hoe plant in New York, it was speeded by truck to Los Angeles — door-to-door shipment.

The folder left New York on Friday, August 20th, and the installation was completed on Thursday, August 26th.

The folder was in actual operation in 30 hours after unloading at the Rotogravure plant.

This is the best kind of testimony to the precision of Hoe design and construction — and it also is an outstanding example of what can be accomplished when manufacturer's and customer's organizations work as a well-integrated team.

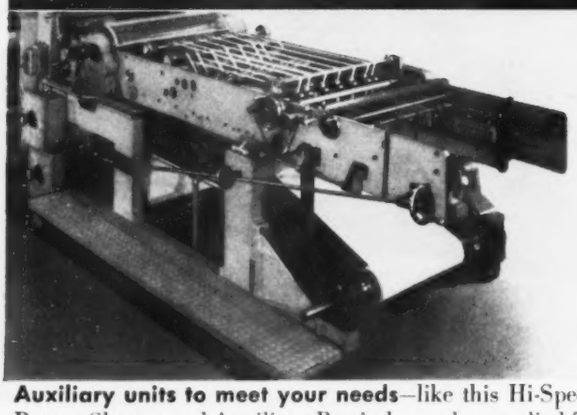
Check ATF Mount Vernon



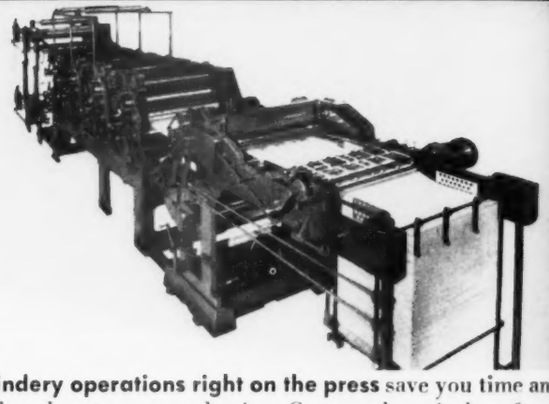
ATF Web-fed Offset presses are available for high-speed production of all types of business forms, process printing, publications, and web-color specialties like playing cards, calendars and novelties. Giant web-color press shown here prints four colors on both sides.

ATF Web-fed Letterpress units such as this outstanding general-duty business forms press, are available for many applications. This press prints, numbers, teletype- and line-hole punches, cross- and vertical-perforates, and rewinds or delivers in flat sheets.

...for more engineering know-how



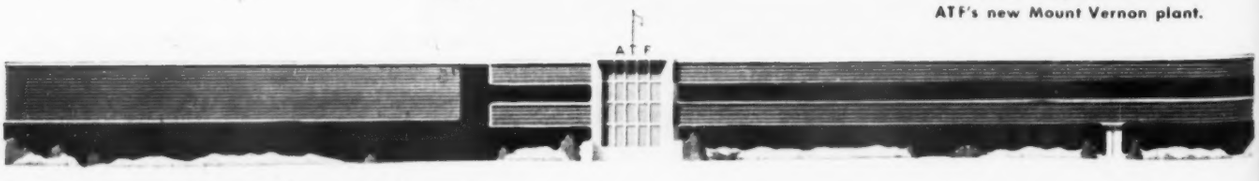
Auxiliary units to meet your needs—like this Hi-Speed Rotary Sheeter and Auxiliary Rewind—can be supplied for any ATF or other make of web-fed press. ATF's broad engineering experience assures you the exact folder, rewind, sheeter or combination your work requires.



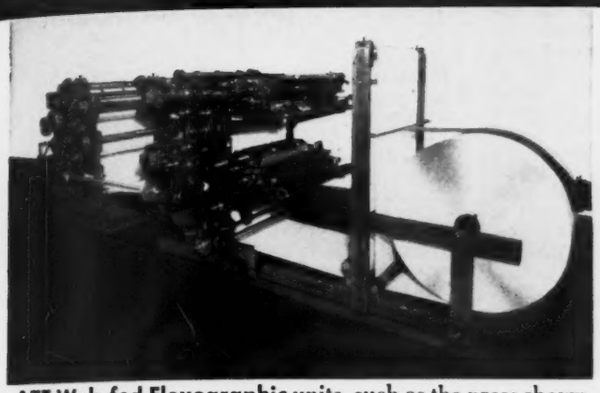
Bindery operations right on the press save you time and labor, boost your production. Cross and vertical perforating, numbering, imprinting, carbon spotting, slitting, sheeting, die-cutting, punching, or carbon collating are no problem for ATF engineers.

...for profitable high-volume,

Web-fed Headquarters U.S.A. is ATF's new Mount Vernon plant.



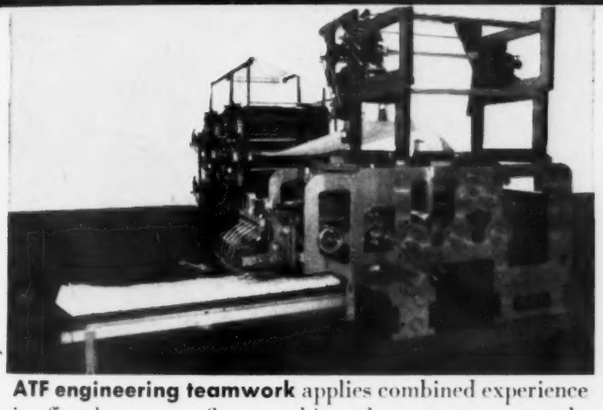
for the broadest web-fed line



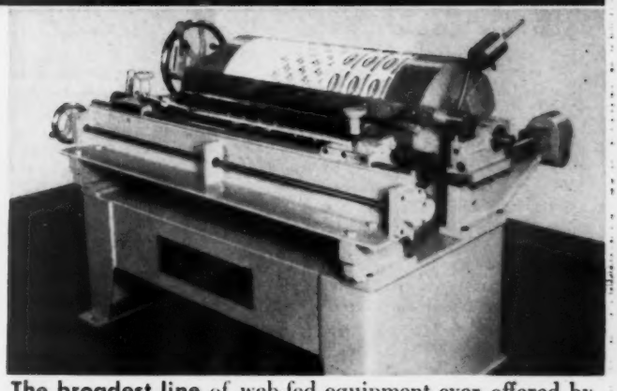
ATF Web-fed Flexographic units, such as the press shown above, are available for printing packaging material and producing line printing for charts and business forms. Speeds on ATF web-fed presses average 15,000 revolutions per hour or more.

ATF Web-fed Gravure presses for package printing on paper, laminated foil, cellophane, glassine, tissue and lightweight board keep production high, changeover time low, and spoilage or web waste to a minimum. Every press is test run before delivery.

and experience in web-fed techniques



ATF engineering teamwork applies combined experience in offset, letterpress, flexographic and gravure to your web-fed needs. Shown above is a high-speed folder connected to any offset press printing simultaneously two webs of paper and delivering complete folded signatures.



The broadest line of web-fed equipment ever offered by any manufacturer includes the ATF gravure proof press above, collators, carbon process machines, laminators, coating units and cylinder engraving equipment and other web-fed equipment. Write for details and booklets. 4.13

low-cost web-fed production

BETTER, MORE PROFITABLE PRINTING FROM THE WIDEST LINE OF PROCESSES

Gravure... Letterpress... Offset... Flexographic

ATF

AMERICAN TYPE FOUNDERS, *a subsidiary of Daystrom, Inc.,* **230 E. Sandford Blvd., Mount Vernon, N. Y.**

Equipment and Supplies

If you wish additional information concerning equipment, supplies and/or technical literature, please make your request to PRINTING EQUIPMENT Engineer, 1276 West Third St., Cleveland 13, O.

Safety Cans in Five Sizes — Eagle Mfg. Co. has announced five sizes of safety cans for use in handling and storing of oil, gasoline and similar liquids and solvents. The Eagle cans are available in 1 qt., 2 qt., 1 gal., 2½ gal. and 5 gal. capacities. The three smallest sizes feature a one-handed trigger-grip handle, while the two largest sizes are equipped with free-swing handles. Both types feature a self-adjusting protective guard cap which prevents leakage if can is upset. Approved by Underwriter Laboratories, the cans are made of 24 ga. terne steel with bottoms reinforced with heavy gauge steel hoops. For more details, please mention PEE No. 376 in your request.

Kodak Autopositive Film

A thin base Kodak Autopositive Film has recently been developed by the Eastman Kodak Co. Sponsor states it is possible to produce a negative from a negative, or a positive from a positive, with single exposure and development. Lateral reversal is accomplished in one operation; but where lateral reversal is not desired, the base also permits printing of the image to metal with the emulsion side of the film facing the exposing light. In engraving, it is claimed, Autopositive Film provides clean dots in four color work as well as providing lateral reversal by contact printing from direct separations made with fast emulsions. Lateral reversal is accomplished without stripping, use of a prism, or straight line reverser. For combinations it is possible to make positives, or both negative and positive images from negatives on the same film. Savings in camera time in block color work are possible, states sponsor, since duplicate negatives or positives can be made in one step. One negative only is made in the camera. The rest are made by contact printing with Autopositive Film then opaqued so only the desired areas will print. For further information, please mention PEE No. 383 in your request.

Table Top Collator

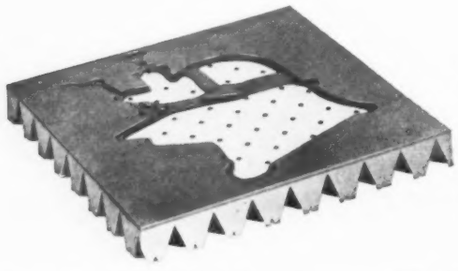
W. E. Thomas, president of Thomas Collators, Inc., recently announced the Thomas Table-Top Collator for assembling sales bulletins, price lists, and other types of duplicated materials into sets. Collator is available in 5 bin and 8 bin

capacities and occupies 16 in. by 27 in. of desk space. Pages to be collated are stacked into tilted bins. Rubber tipped fingers push the top sheets of each stack into operator's hand. The assembled set of papers is then jogged and placed into a gathering tray below the unit. Collating cycle is controlled by a hand lever located on either right or left side. For further information, please mention PEE No. 385 in your request.

Processing Solution

A solution which is said to combine three separate presensitized platemaking operations into one step has been announced by the Chemical Div. of the Harris-Seybold Co. The chemical, named Harris 3 in 1 Solution, takes the place of desensitizer, lacquer and gum when developing presensitized offset plates. The

(*Continued on Page 20*)



LITE-BASE is a permanently stable mounting material which can be cast at low cost in any plant from type metal. It will not shrink—warp or compress under printing and molding pressure and can be accurately planed to within half-thousandths. Also, it can be remelted time and again.

for the good of letterpress Wood Must Go!

Wood mounted plates are the greatest single cause of lost time and poor quality in the pressroom or foundry. Vandercook "Lite-Base" is the proven solution to the elimination of wood in letterpress forms. Below is a list of photoengravers, electrotypers, printers and typesetters who are now equipped to supply plates mounted on Vandercook "Lite-Base":

Art Engraving Company, *Houston, Texas*
Blundell Bros. Ltd., *Wellington, New Zealand*
Bomac Engravers Ltd., *Toronto, Canada*
Brown & Hartman Company, *Tulsa, Okla.*
Bryan-Brandenburg Company, *Los Angeles*
William Byrd Press, Inc., *Richmond, Va.*
Cocks-Clark Engraving Co., *Denver, Colo.*
The Davidson Company, *St. Joseph, Mich.*
Dept. of Public Printing and Stationery, *Ottawa, Canada*
R. R. Donnelley & Sons Co., *Chicago, Ill.*
The William Feather Co., *Cleveland, Ohio*
Vincent B. Fuller, *Philadelphia, Pa.*
W. S. Gilkey Printing Co., *Cleveland, Ohio*
The Hart Publications, Inc., *Long Prairie, Minnesota*
Herald-Review, *Grand Rapids, Minn.*
The F. J. Heer Printing Company, *Columbus, Ohio*
The Jersey City Printing Company, *Jersey City, New Jersey*
Kable Printing Company, *Mt. Morris, Ill.*
Claire J. Mahoney, *Kalamazoo, Mich.*
The Morgan Company, *Tulsa, Oklahoma*
New Mexico Engraving Company, *Albuquerque, New Mexico*
New Orleans Engraving & Electrotype Co., *New Orleans, Louisiana*
Parker Art Printing Association, *Coral Gables, Fla.*
D. W. Paterson Co. Pty., Ltd., *Melbourne, Australia*
Popular Mechanics Company, *Chicago, Ill.*
Potomac Electrotype Company, Inc., *Washington, D. C.*
A. H. Pugh Printing Co., *Cincinnati, Ohio.*
Seligson & Clare, Ltd., *Johannesburg, So. Africa*
Southwestern Engraving Co., *Dallas, Texas*
Walker Engraving Co. of Rochester, Inc. *Rochester, New York*
Walker Engraving Corp., *San Francisco, California*
Williams Press, Inc., *Albany, New York*

These Schools Have Complete "Lite-Base" Installations

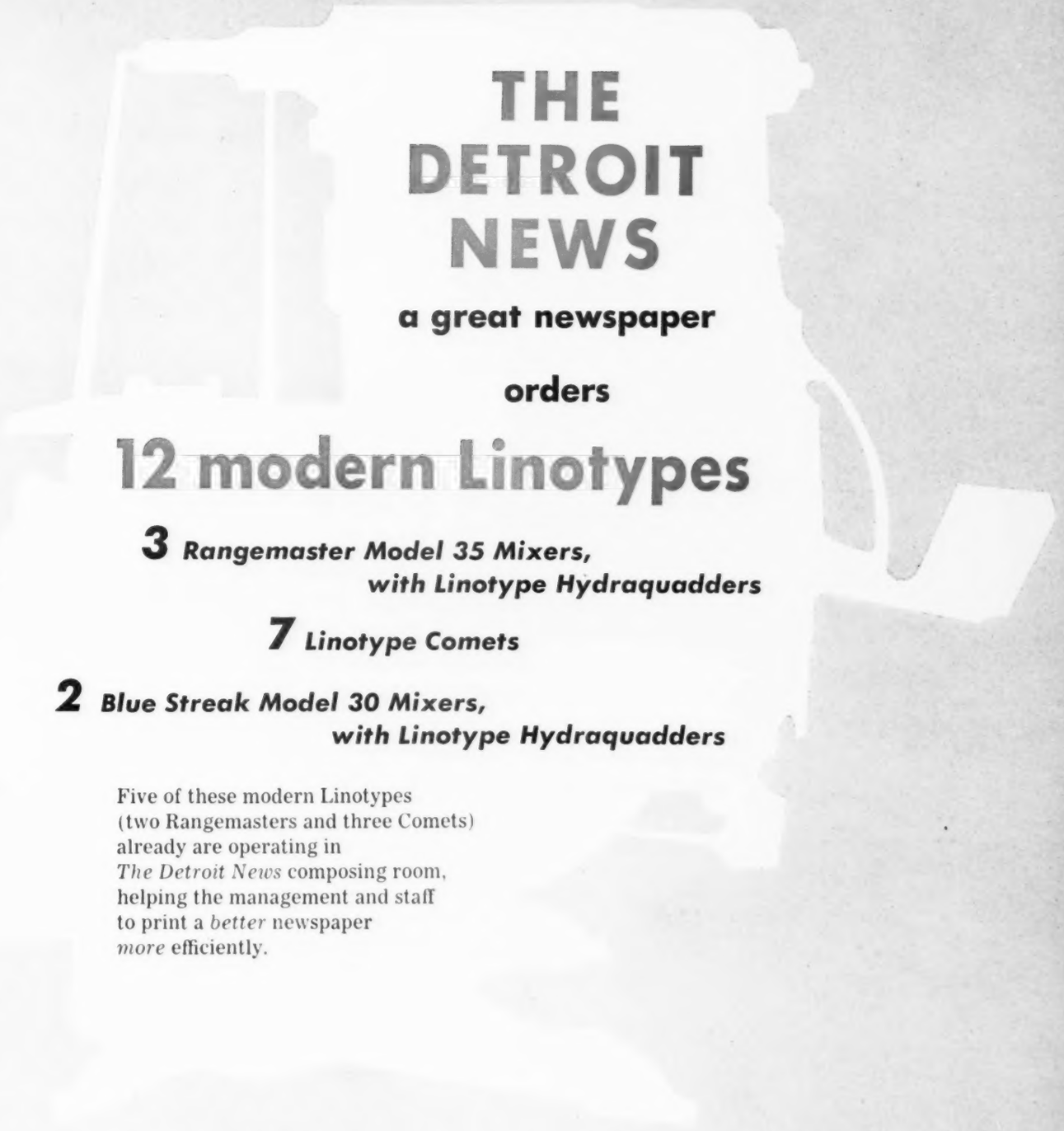
Carnegie Institute of Technology, *Pittsburgh, Pennsylvania*
Rochester Institute of Technology, *Rochester, New York*
Technical Trade School, *Pressmen's Home, Tennessee*

VANDERCOOK & SONS, INC.

VANDERCOOK PRE-PRESS SYSTEM

Specializing in Makeready Reduction

General Offices, Research Laboratory, Demonstration Room & Factory
3601 W. Touhy Ave., Chicago 45, Ill. Phone: ROgers Park 1-2100
Eastern Office & Demonstration Room
323 East 44th St., New York 17, N. Y. Phone: MUrray Hill 4-4197
Western Office
3156 Wilshire Blvd., Los Angeles 5, Calif. Phone: DUnkirk 8-9931



THE DETROIT NEWS

a great newspaper

orders

12 modern Linotypes

3 ***Rangemaster Model 35 Mixers, with Linotype Hydraquadders***

7 ***Linotype Comets***

2 ***Blue Streak Model 30 Mixers, with Linotype Hydraquadders***

Five of these modern Linotypes
(two Rangemasters and three Comets)
already are operating in
The Detroit News composing room,
helping the management and staff
to print a *better* newspaper
more efficiently.

MERGENTHALER LINOTYPE COMPANY
29 Ryerson Street, Brooklyn 5, N. Y.

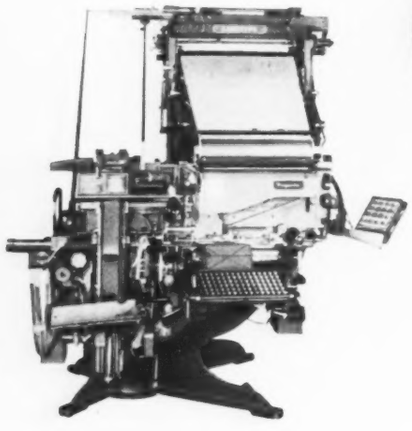
• LINOTYPE •

Agencies: Atlanta, Boston, Chicago, Cleveland, Dallas, Los Angeles, New York, San Francisco. In Canada: Canadian Linotype, Limited, Toronto, Ontario

L E A D E R S H I P T H R O U G H R E S E A R C H

Set in Linotype Corona and members of the Spartan family

Can you keyboard this ad without using side magazines?



You can on a Rangemaster Linotype!

The sample foodstore ad was *keyboarded* directly from the four main magazines of a Rangemaster Model 35 Linotype. No side magazines were needed because this modern Linotype sets from the smallest type sizes right up through normal 36- and condensed 48-Pt. There was no expensive "cutting in" because its easy to mix from two adjacent magazines.

No other mixer has the main magazine capacity of the Model 35, and this unequalled type range is extended by the Model 36 Rangemaster through condensed 60 Pt. Rangemaster Models 33 and 34 set the same large sizes, respectively, but do not mix.

All four Rangemaster models embody proven design and engineering superiorities that give you unsurpassed operating efficiency.

The Rangemaster benefits of unmatched type range and operating efficiency add up to *more profits*, and make these modern Linotypes the choice of publishers everywhere. Why not ask your Linotype Agency for the full Rangemaster story *today*?

Users say that Linotype's new Hydraquadder is the best quadder ever developed. Available on new machines or for installation on Linotypes in your plant.

Mergenthaler Linotype Company, 29 Ryerson Street, Brooklyn 5, N. Y. · LINOTYPE ·

Set in Linotype Corona and Spartan families

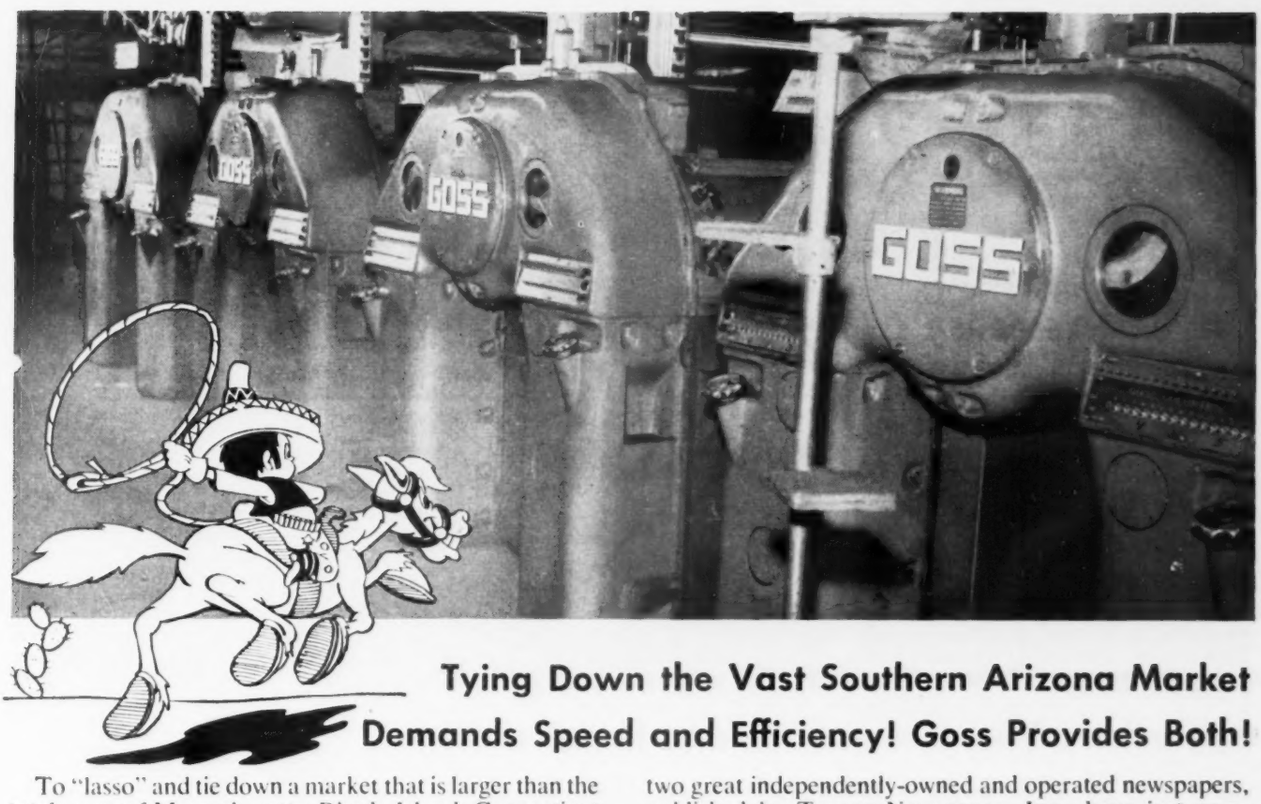
Agencies: Atlanta, Boston, Chicago, Cleveland, Dallas, Los Angeles, New York, San Francisco. **In Canada:** Canadian Linotype, Limited, Toronto, Ontario

LEADERSHIP THROUGH RESEARCH

Headliner®

HELPS THE STAR & CITIZEN

"LASSO" A TOUGH CRITTER!



Tying Down the Vast Southern Arizona Market Demands Speed and Efficiency! Goss Provides Both!

To "lasso" and tie down a market that is larger than the total areas of Massachusetts, Rhode Island, Connecticut and Delaware combined is a man-sized job. That's the big, rich, constantly-growing three-county Southern Arizona market—a market that has increased its population nearly 32% in four short years since the 1950 census!

Since Tucson is the only city in this tri-county area, the people of Southern Arizona depend upon Tucson's facilities for a large part of their daily needs.

To reach the biggest portion of the more than 244,000 people in this vast area with the very latest news and advertising demands the ultimate in speed, the finest of equipment and service.

To meet the demands of the unprecedented and rocket-paced growth of the Southern Arizona market, Tucson's two great independently-owned and operated newspapers, published by Tucson Newspapers Inc., have just completed a million dollar expansion program. This program has produced one of the most modern newspaper publishing plants in the Southwest.

Heart of TNI's new plant is the Goss HEADLINER press, four units of printing wizardry that will turn out over 60,000 news copies an hour! Future expansion calls for 10 units with a press capacity of 160 pages. Full ROP color facilities are available. The HEADLINER is excellent assurance of continuing efficiency as this great market grows—and grows!

GROW WITH GOSS

THE GOSS PRINTING PRESS COMPANY

5601 West 31st Street **Chicago 50, Illinois**

WORLD'S LARGEST MANUFACTURER OF NEWSPAPER, MAGAZINE AND ROTOGRAVURE PRESSES

Have You the PENCIL-CHEWING WORRIES Over Mat Problems?

SWITCH TO

BEVERIDGE MATS!

If you are chewing your pencil over mat reproduction or shrinkage problems, switch to Beveridge mats. Beveridge's smooth face picks up the dots easily, gives clean release of the plate in casting and offers exceptionally deep moulding qualities. Rid yourself of mat worries—get sharp, faithful reproductions with minimum make-overs . . . that means use only BEVERIDGE Mats. Write today!

NEW PRODUCTS DIVISION

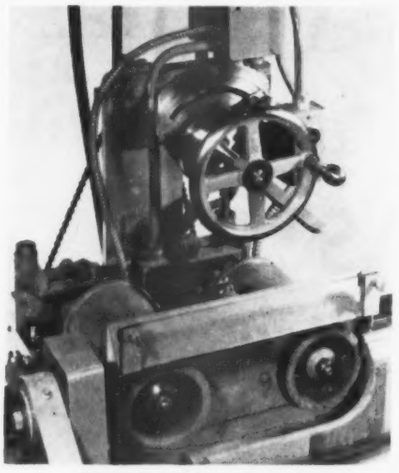
BEVERIDGE PAPER CO.

Indianapolis 4, Indiana

SAVE TIME—

SAVE MONEY—

USE NEW DUAL HEAD DOCTOR BLADE GRINDER



Close-up of Dual Heads:

A shift of clutch lever changes rough stone to fine stone.

A coolant prevents blade burning.

STANDARD PROCESS CORPORATION

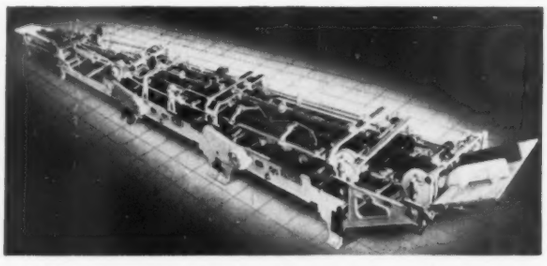
Manufacturing Gravure Equipment & Supplies

2704 W. Roscoe Street • Chicago 18, Ill.

Equipment & Supplies

(**Continued from Page 16**)

solution eliminates the need for a water supply, large working areas and several different chemicals. Sponsor claims relatively inexperienced personnel can develop a good presensitized plate, since over development or filling in of dot patterns is eliminated. After the plate is exposed, a pool of Harris 3 in 1 Solution is poured on the plate and the entire surface is rubbed with a moist sponge. Nonprinting areas are desensitized and images develop immediately. When excess solution has been wiped off and the plate rubbed dry, no additional washing or gumming is required. For further information, please mention PEE No. 371 in your request.



Extra Attachments Built Into Gluer—The Staude Master straight line infold gluer is so engineered that extra attachments are built into the gluer adapting it for different types of conventional boxes including Beers style cartons, such as mint trays, cake boxes and overlap trays; and an assortment of Brightwood type cartons. Six corner equipment with a third gluepot is standard equipment. Narrow bottom cover blanks and specialties such as carriers can be run without extra equipment, states manufacturer, E. G. Staude Mfg. Co., Inc. The Himes style, or crash bottom, blanks are included in the number of styles. The front section takes double and triple-fold cartons and can be used for dewaxing. A time bottom feed can be attached to speed up production of boxboards and laminated boards. For further information, please mention PEE No. 379 in your request.

Super T Line Motors

A line of industrial d.c. motors has been introduced by the Reliance Electric and Engineering Co. These are called Super T Line d.c. Motors. Applications in the printing industry are for commercial and newspaper presses and other equipment in either unit or group drives. The motors are furnished in sizes from 7½ h.p. to 250 h.p. The time required, it is claimed, for the Super T to accelerate to full speed has been cut in half over company's previous motors.

View of totally protected Reliance Super T Line d.c. Motor. Horsepower range of new line is from 7½ to 200.

Built into the Reliance Super T Line Motor is what is called Dynamic Response. Sponsor explains: "Dynamic Response is the controlled reaction of motors to the demand for change—dynamic because it is big and powerful enough to move loads and overcome time elements—yet controllable and gentle in response so that it will not break, stretch, or tear . . . paper, fabrics, or foils." It is also explained that the armature is the key to motors designed for

(*Continued on Page 25*)

Picture of a man bringing a 4-color press into Perfect Register

Here's the control end of the equipment that provides accurate, automatic register of all colors . . . that detects and corrects variations not visible to the human eye . . . that maintains this accuracy, hour after hour, even at top operating speeds.

Simple to Operate

As shown in the photo above, the operator first brings the colors into register by manual push-button control. The corrections he makes are shown on the indicator dials in known increments. As each color is brought into exact register its control is switched to "automatic." All further corrections are made automatically and register is maintained to an accuracy of a few thousandths of an inch.

Amazing Accuracy

The new Hurletron employs a dual circuit which eliminates the tolerance zone, or dead zone, entirely. Very close running register is maintained by the integrating portion of the circuit which notes small deviations from perfect register and makes correspondingly small movements of the compensator.

Less Waste at Splices

During splices, when greatest shifts in register occur, the proportional portion of the control makes corrections with remarkable speed, thus reducing the number of spoiled copies to a minimum.

Hurletron Automatic Color Register Controls are in successful operation in the finest color printing plants in the country, both rotogravure and letterpress. They are adaptable to any web-fed press . greatly reduce waste . insure finest quality printing . . . increase production and reduce costs.

Want more details? Write us today.

HURLETRON

Automatic

Color Register Control

Users of Model 40-J Hurletron Controls can easily convert their equipment to the new 96-J.

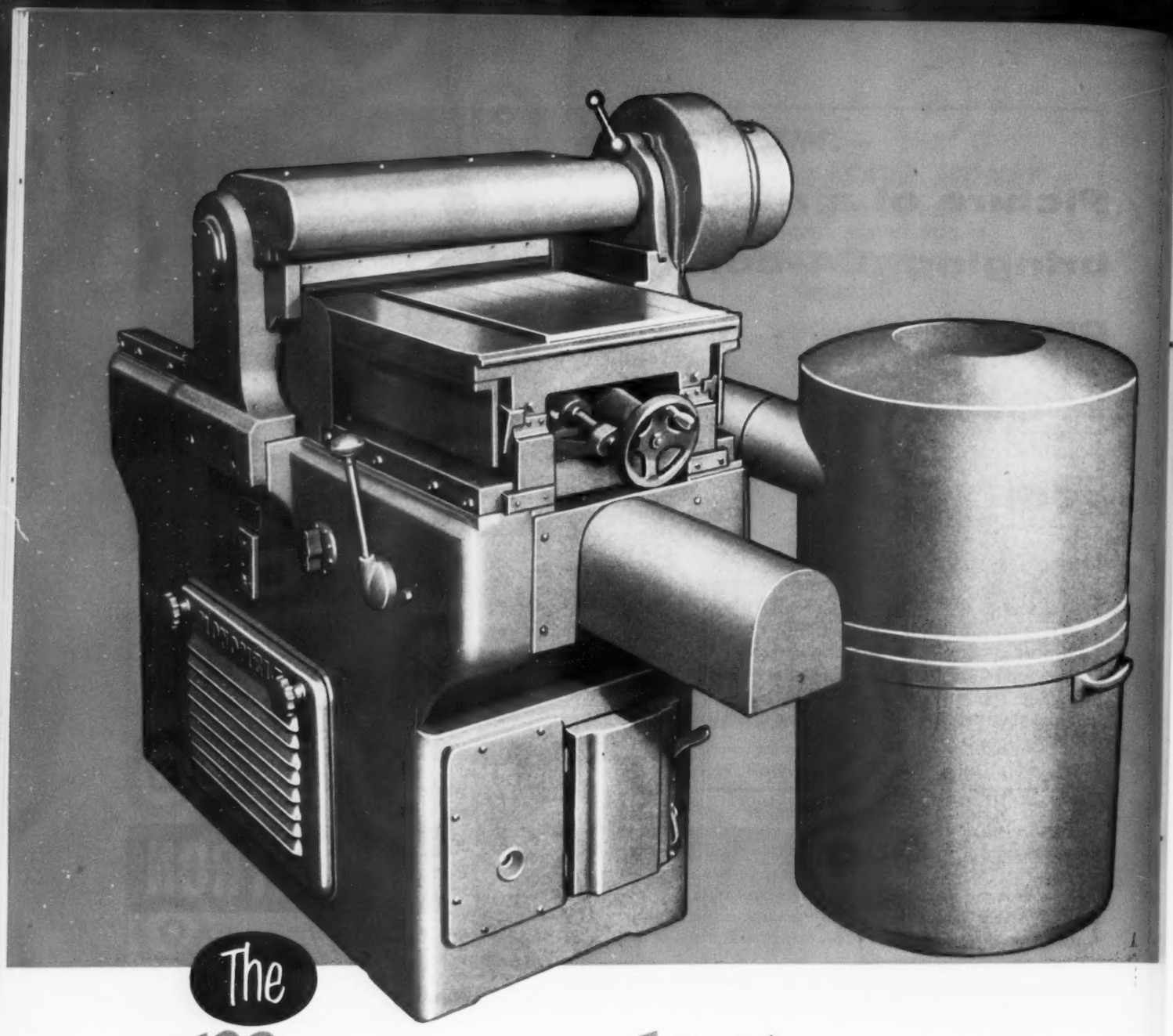
If your presses are now equipped with Model 40-J Hurletron Controls, let us show you how, with a few comparatively simple changes, you can have all the advantages of the new model 96-J

...GREATER ACCURACY
...GREATER EFFICIENCY
...GREATER ECONOMY

ELECTRIC EYE EQUIPMENT COMPANY

1930 EAST FAIRCHILD STREET, DANVILLE, ILLINOIS

Manufacturers of: Hurletron R.O.P. Color Registration Controls; Automatic Controls of Caliper and Weight on Paper and Board; Center Line and Side Web Guide Controls; Cut-Off and Back-Up Controls; Slitter Controls; Moisture Controls; Continuous Nephelometer for detecting suspended solids in liquids.



The

Monomelt Hydraulic

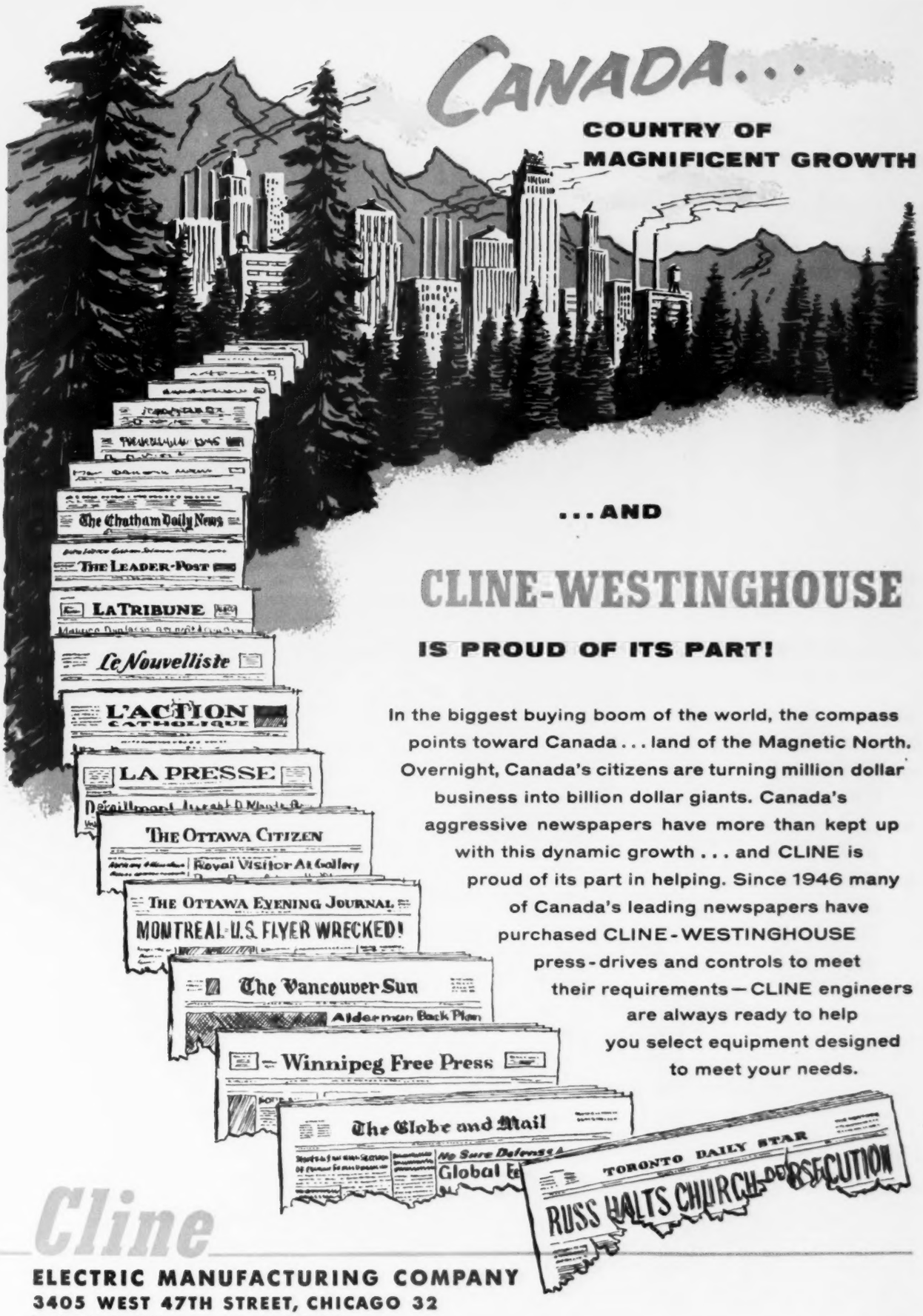
HEAVY-DUTY ROTARY SHAVER

WITH BUILT-IN VACUUM CHIP DISPOSAL UNIT

Every part of this rugged unit is designed for high production shaving of electros, stereos, metal base, plastic and wood. New, one-piece, heavy ribbed base casting . . . extra wide, hand finished travel ways . . . 19 finger separately adjustable spring actuated hold-down . . . positive modern machine tool-type wedge system for raising and lowering table . . . easy reading barrel type micrometer control, adjustable to .001″ . . . positive locking action . . . self-contained vacuum chip disposal system with portable container . . . secondary opening to bag with shut-off damper for plastic or wood chip disposal . . . positive hydraulic feed with variable forward speed and fast return . . . full page capacity to 17½″ x 22½″. . . ten tooth, tool steel, rotary cutter head with Timken bearings . . . smooth feed . . . shaves accurately from .140″ to 1.000″. This unit easily maintained . . . easily adjusted . . . easily lubricated. Sensibly priced. Write today.

Manufactured by **THE Monomelt COMPANY, INC.**

1611 N. E. Polk • Minneapolis, Minnesota


CANADA...
COUNTRY OF
MAGNIFICENT GROWTH
...AND
CLINE-WESTINGHOUSE
IS PROUD OF ITS PART!
In the biggest buying boom of the world, the compass points toward Canada . . . land of the Magnetic North. Overnight, Canada's citizens are turning million dollar business into billion dollar giants. Canada's aggressive newspapers have more than kept up with this dynamic growth . . . and CLINE is proud of its part in helping. Since 1946 many of Canada's leading newspapers have purchased CLINE-WESTINGHOUSE press-drives and controls to meet their requirements—CLINE engineers are always ready to help you select equipment designed to meet your needs.
The Chatham Daily News
THE LEADER-POST
LA TRIBUNE
Le Nouvelliste
L'ACTION CATHOLIQUE
LA PRESSE
THE OTTAWA CITIZEN
Royal Visitor At Gallery
THE OTTAWA EVENING JOURNAL
MONTREAL-U.S. FLYER WRECKED!
The Vancouver Sun
Alderman Back Plan
Winnipeg Free Press
The Globe and Mail
TORONTO DAILY STAR
RUSS HALTS CHURCH PERSECUTION
Cline
ELECTRIC MANUFACTURING COMPANY
3405 WEST 47TH STREET, CHICAGO 32
Los Angeles 17, California • New York 17, N. Y.

TURN OUT MORE VOLUME AT LOWER COST

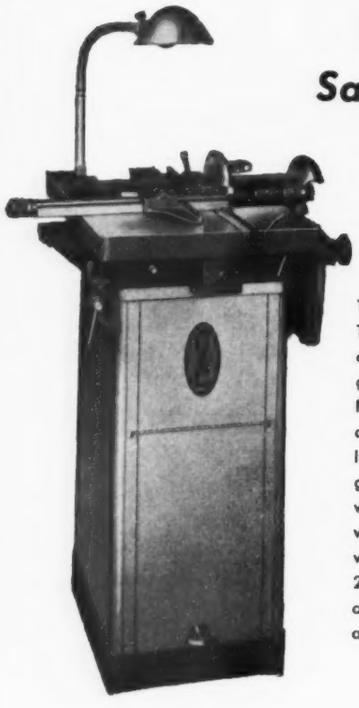
with *Morrison* **Composing Room Machines**

MORRISON PLATE BEVELER

Puts a perfect, burr-free shoulder or bevel on all plates. Cutters work from edge of plate, not the top. You get a smooth die-straight cut every time.

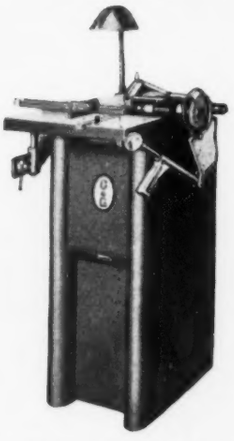
MORRISON

Model 3-A Saw Trimmer



Today's more versatile saw, Table, 30" x 18". DeLuxe equipment includes: 73-Pica gauge and workholder. 135-Pica extension gauge, miter and lineup gauge, right and left-hand miter vise, saw grinder with dished emery wheel, trimmer grinder, universal saw blade assembly with head and trimmers. No 20 waste receptacle, adjustable lighting fixture, motor and pulley.

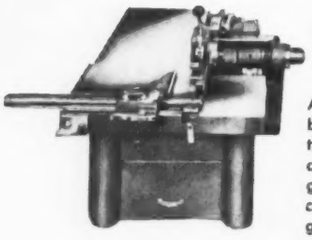
MORRISON MODEL 45 SAW TRIMMER



With pistol grip saw blade attachment. Features "Trigger Speed" saw adjustment.

MORRISON SLUG STRIPPER

"Proves itself to the men, within 24 hours." Makes it easy to strip the face of any slug or type character to the exact thickness needed for base heights.



MORRISON MODEL "45" SPECIAL

A low-cost saw trimmer that embodies most of the features of the higher priced Model "45" and Model 3-A. "Behind the gauge" work clamp is standard, conventional "ahead of the gauge" clamps is optional equipment. Also available in a cabinet model.

MORRISON ROUTER AND TYPE HIGH PLANER

Saves time in making corrections and changes, saves make ready time by having all cuts precision height. Has exclusive Morrison micrometer height gauge. Allows routing to center of a 34" cut.

Other Morrison Equipment includes: Strip material cabinets, waste receptacles, Universal saw blades, router bits, and jig saw blades

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Equipment & Supplies

(Continued from Page 20)

Dynamic Response. Accordingly, five basic armature diameters have been produced, each with the lowest possible inertia, and each with the largest and best suited commutator for motors from 7½ h.p. to 250 h.p. To be assured of having a motor with fully balanced dynamic response, the rest of the motor was designed to be compatible with the armature.

Sponsor further comments: "Dynamic Response demands a rapid rate of change in the magnetic field of the motor . . . The problem was studied by fluid dynamics in addition to the usual numerical analysis methods. Patterns developed by the fluid dynamic method . . . helped to make possible a design to provide for the most rapid magnetic field changes."

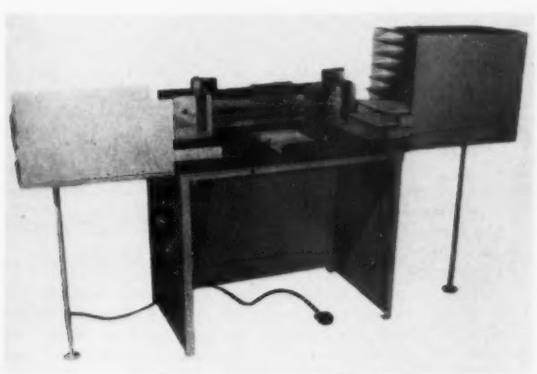
It is also explained that the min. and max. speeds through which a motor will operate and do the required work is its speed range. Low speeds for jogging and creeping frequently dictate the lowest speeds. For some applications the ability to provide controlled rates of speed change from rest, from speed to speed, or for full reversal is considered an adjustable speed function.

"The Reliance Super T Line d.c. Motor operating as a part of Reliance V★S Drive, provides . . . normal speed ranges up to 50 to 1, and even greater ranges by addition of regulatory equipment."

Reliance Super T Line d.c. Motors are obtainable in the following protections: Totally protected, forced ventilation, with or without filters, pipe ventilated, totally enclosed fan cooled and dual cooled.

In addition to standard foot mounting design, motors with flange and face mountings for horizontal and vertical mounting are available.

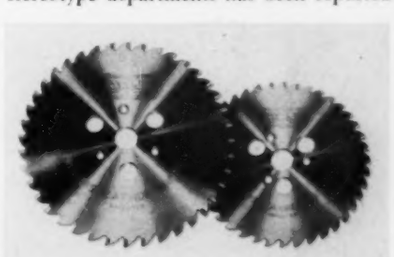
If further details are wanted, please mention PEE No. 372 in your request.



Whale Tipping Machine—Harris-Seybold's Special Products Div. has announced the Whale Tipping Machine which will be distributed by Harris-Seybold in the U. S. and Canada. The Whale Tipper is especially designed for printers who enter the carbon set and snapout forms business. It is also expected to be used among printers who job out padding work, or who employ hand tipping methods. The Whale Tipper is designed for use on either continuous or stop-and-go operations for small jobs or long runs. Work guides are adjustable to handle a max. sheet 17 in. by 22 in. The maximum speed of the glue bar, electrically actuated by a foot switch, is 3120 strokes per hr. and is drilled for a double row of tipping pins, 100 in all, making the Tipper capable of handling heavy forms. For more details, please mention PEE No. 378 in your request.

Carbide Tipped Saw Blade

A carbide tipped saw blade for use in composing rooms, photoengraving and stereotype departments has been reported



by Gay-Lee Company. Sponsor claims the blade will cut all metals, including the recently introduced alloys, stereotypes, metal base and slugs. It is to be known as the

(Continued on Page 26)

contrast your own
line casting matrices . . . Ludlow . . .
Fotomats, etc. with
the ***NEW***
patented

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The low-cost, fast, safe and easy to use COLD CHEMICAL contrasting process.

No special equipment, tanks, stoves or heat of any kind required.

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Each Kit contains extra FREE SAMPLE bottles. If you are not completely satisfied after trying the FREE SAMPLE, return the kit for a full credit or refund. Shipped on open account to listed firms.

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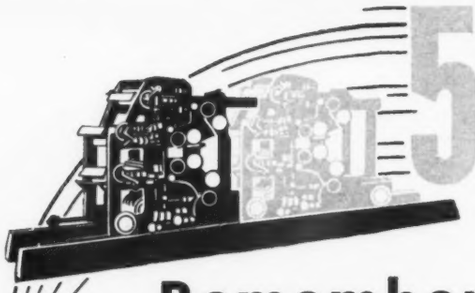

Remember

as your color printing requirements increase—the entire framework of Hess & Barker's Web Fed Multicolor Letterpress is designed to meet your printing demands. With Hess & Barker's press you can start with four colors one side or two colors two sides. As your sales increase, (and they will increase), you can add up to five colors on either or both sides. Speeds up to 10,000 sheets an hour. Roll delivery 750 feet per minute. Hess & Barker's Web Fed Letterpress is a money maker. This is proved by the fact that seventy-five percent (75%) of our customers own and operate two or more Hess & Barker Web Fed Multicolor Letterpresses. It does not cost to own Hess & Barker's presses—it pays handsome dividends.

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Equipment & Supplies

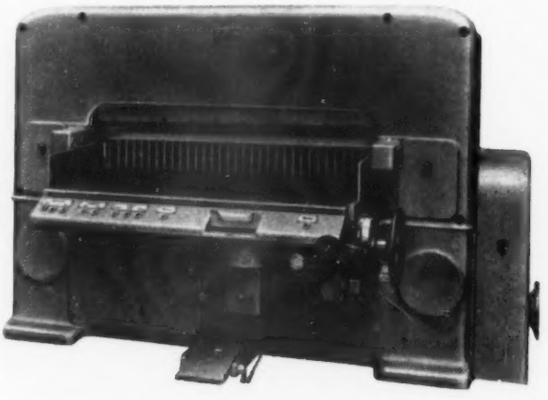
(Continued from Page 25)

Gay-Lee Thinsaw. The company also claims that a burrless cut is made by the blade and reports good results on back rake cutting and that it does not scream or throw chips. For more details, please mention PEE No. 373 in your request.

Leakproof Pocket Clip Oiler

E. S. Tubin Engineering has announced a leakproof pocket clip oiler which may be carried on the person to provide drops of oil on machinery when and where needed. Typical applications are on linecomposing machines, distributor screw bearings and other small bearings, typewriters, mailing machines, etc. The barrel of the device is transparent which shows the amount of oil in the pocket oiler at all times. Sponsor states it may be loaded with oil of any

(Continued on Page 27)



The Consolidated - RPM Automatic Precision Paper Cutter is of heavy construction, with shearing action, is equipped with power back gauge with manual and foot control, an electric eye safety control, a dual push button shear control and a size indicator for manual, semi and automatic spacer mechanism. The cutters are made in 35 in., 41 in., 51 in. and 65 in. sizes and are manufactured in Cologne, Germany, by the Rheinische Papierbearibertungs Maschinenfabrik G.m.b.H., West Germany. Distribution in the United States is handled by Consolidated International Equipment & Supply Co. Sponsor states calibrated scales with semi-automatic stop spacers assure accurate multiple cutting; controls are manual and automatic; two heavy duty pressure bars (one on each end of the knife bar) pull the knife through the pile; and heavy duty motor equipment operates the hydraulic pump and the electromagnetic clutch and brake synchronize the clamping and cutting knife to proper sequence of operation. It is also stated the hydraulic pressure cylinder with heavy dual levers assures uniform pressure over the entire cutting length; cutting action is that of a double scissor movement. The cutter is supplied with a lubricating system controlled by a single lever action to lubricate all moving parts; precision heavy duty and ribbed back gauge is motivated by a 2 in. Acme screw drive to move the paper smoothly and accurately. It is also claimed measurements on fine graduated scales are easy to read; a semi-automatic stop system assures that every cut is accurate, and construction permits cutting heavy cardboards and the hard paper materials.

The stop and repeat cutting attachment is an extra accessory and is said to produce multiple work automatically. An adjustment is provided by handwheel to control the force of cutting dependent on the pile and type of material to be cut. Please mention PEE No. 266 when asking for further information.

Equipment & Supplies

(Continued from Page 26)

viscosity. It is to be known as the Oil Mate. To operate, the bottom is unscrewed as with a pen. The point of the Oil Mate is placed at the spot on the machine where oil is needed and the plunger on top is depressed. A single drop of oil is deposited on each depression of the plunger. Filling is performed by unscrewing the top part of the device. It is available in red, blue, yellow, green and black. For further details, please mention PEE No. 375 in your request.

Thin Stainless Steel Line Gauge — A thin, lightweight, 12 in. stainless steel line gauge, No. 14, is now offered by H. B. Rouse & Co. The gauge is 0.030 in. thick. Markings are 6 and 12 pt. on one edge, inches on the other edge and agate graduations on the center line. Graduation legibility is achieved by black markings against a bright background. For further information, please mention PEE. No. 380 in your request.

Magnastep Step and Repeat Machine

Magnastep Company has announced a step and repeat machine for offset plate-

makers. Max. plate size is 30 in. by 41 in. which is the total available exposure area. Operation of the machine is described as being simple for producing step and repeat (multiple) images on an offset printing plate. Beneath the blanket on the worktop is a flexible magnetic base which holds two steel rules (graduated in 1/32 in. divisions) and the film bar accurately to the

(Continued on Page 66)

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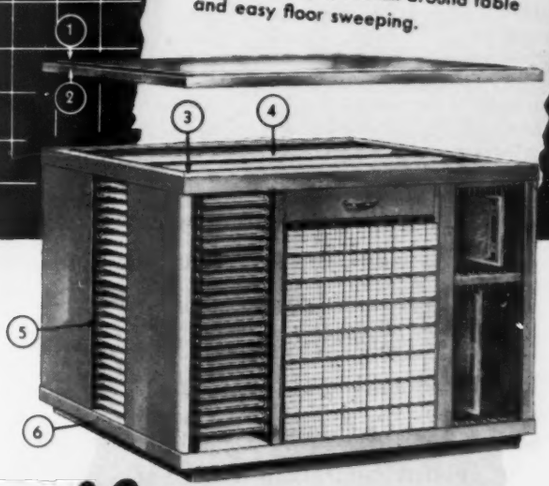

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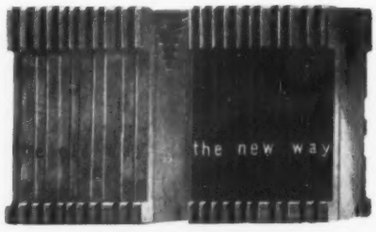

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Parthenon Press Demonstrates To Customers How It Employs

Color Test Booths

By P. R. RUSSELL

ASIDE from the demonstrations going on in the offset plate department, one of the things attracting attention of printers who attended that portion of the LTF Southern Technical Forum at Nashville, Tenn., which was staged in the Parthenon Press offset department, was the practical use being made of color test booths in both letterpress and offset pressrooms in that plant.

Information and blueprints may be obtained from General Electric for the construction of these booths and for their use in the pressroom, but it remains for the plant owner to construct the equipment and to make practical use of it. Parthenon Press has built two booths and is learning the practical value of them in color printing, both offset and letterpress. G-E specifications were followed. (Genesis of the color testing booth occurred in the plant of Copifyer Corporation, Cleveland, in 1948.) But there remained a number of problems to be worked out by men in the Nashville plant.

These booths are built, of course, to accommodate the largest press sheet in use. This size, however, is further determined by the length of Neon tubes and strips that are being used. The Parthenon Press booths use the full length, 48 in. strip and tube, and overall size is 84 in. wide, by 66 in. deep, by 91 in. high. The inspection bench or table is 31 in. from the floor in front and 48 in. in the rear.

Three light tubes of each of three colors and white are banked on either side overhead at an approx. 45 deg. angle to provide adequate and even lighting over the sheet under inspection. Both Parthenon Press booths are constructed to take a sheet up to 46 in. by 78 in., larger than any press in the plant.

For all colors, as well as white, white Neon tubes are used, with colors being covered. This part of the job was entrusted to Ed Rehnke, foreman of the offset plate room. The proper thing to use, of course, would be regular color filter, but Eastman makes this only in sheets too small for this use. However, by using the filters complementary to regular four-color process colors, for matching purposes, Rehnke was able to obtain theatrical gelatine (normally used in theaters to color spotlight projection on the stage), from Rosco Laboratories, 367 Hudson Ave., Brooklyn 1, N. Y.

From the folder he selected No. 15, light red; No. 37, dark urban blue; and No. 40, medium green. This material is inexpensive and can be obtained in sheets sufficiently large for covering any size Neon tube. Six months actual use in the Parthenon Press plant has demonstrated that these color selections were correct. Any printer desiring color test facilities for other than regular color process shades can work out what he wants with the assistance of local ink men or by seeking aid elsewhere.

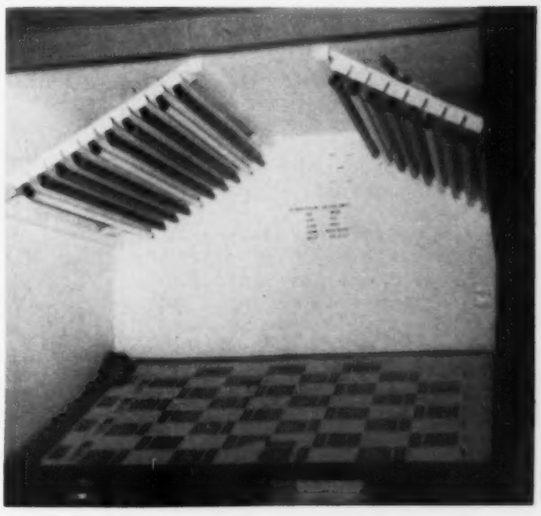
Here is the schedule for color tests posted in the Parthenon Press booths: For yellow, use blue lights; for red, green; for blue, red; for black, white; for brown, green or blue; and for green, red or blue.

While the accuracy of these test booths for matching colors—press sheet with progressive proofs or other matching sample—is discounted, it has many other practical uses.

"The greatest value of the booth for us being when the press run starts," declared W. MacDonald Hill, Parthenon Press letterpress department foreman. "By the use of it defects in plates are revealed and uniformity of any color can be obtained throughout the longest run." (Runs in this plant are frequently in the hundreds of thousands.) Hill admits, however, that testing facilities are valuable only in proportion to the extent of their use by pressmen.

As an illustration of the value of booth testing for defects in the Parthenon Press offset department, recently a blanket mash in a large yellow plate was discovered that had not been detected before. (Pressmen know that defects in process yellow are almost impossible to detect in natural light. They show up glaringly when subjected to a blue light in the booth.) In process color work such defects usually do show up as serious flaws when overprinted by other colors. This may require reprinting at a terrific loss. Any printer doing color work can vouch for that.

One of the biggest problems in lengthy color runs is in maintaining uniform color throughout the run. Two and maybe three shifts of pressmen are involved in keeping the colors right. In the Parthenon Press plant, before use of the booth, the second or third shifts, working at night



This is an interior view of the color test cabinet used in the plant of Parthenon Press, Nashville, Tenn., in both letterpress and offset pressrooms. Not shown are the switches on the left side for controlling the Neon tubes. Theatrical gelatine filters complementary to regular process colors are used for matching purposes.

under different lighting conditions, got a bit (sometimes more than a bit) off color during their part of the run. This problem has been solved in the Nashville plant by requiring that press sheets be tested for uniformity of color, day and night, in the color test booth. No excuse for "changed" lighting conditions here. No more blaming the second shift for spoiling the job.

Many plants, both large and small, do not have lighting in the pressroom that meets the requirements and the owners may be unable to afford new lighting. Perhaps, here is the answer—a large test booth, like those in use in the Parthenon Press plant, can be built and equipped for around $300, less if there happens to be even a fairly good carpenter around. Then virtually all of sheet testing and examining normally required in pressrooms could be transferred to this booth, answering most of the purposes of a fully-lighted pressroom.

For the smaller plant, with presses limited to 22½ in. by 35 in. or even 17 in. by 22 in., a smaller cabinet can be built, using shorter Neon tubes and strips. The cost of the whole thing will be considerably less than for the maximum size. The benefits can be the same.

The possibility of a color test booth being used for a makeready markup bench may be seen in plants where space is at a premium. A separate light for this purpose may be installed apart from overhead lights. Space underneath the bench or table in the booth may be made into proof or color sheet storage bins for a further convenience as well as saving of space.

Hill of the Parthenon Press admits that it is difficult to get pressmen, particularly the older ones, to use facilities like this, but he is doing this much—requiring press apprentices to learn to use the booth from the beginning. He continually reminds the older men when faults show up in their color presswork that use of the test facilities would probably have eliminated all of it. In time all pressmen will come to realize the value of using any means they have of checking on the quality and uniformity of their work.

There is also a very definite sales angle to the use of one of these color testing booths. Suppose you have a customer for whom you are about to do a color process job—or you have a customer who has not yet decided to give you this particular job and who is undecided about your ability to do it. Could you not bring him into the plant and escort him to the color testing booth, and there have your pressroom foreman, if you can't do it yourself, give that customer a demonstration of its workings. Few but who would be quite impressed by the extent to which you propose to go to insure quality of their color work.

Any printer desiring to build one of these booths can contact his local G-E dealer and through him obtain the folder mentioned and the blueprint. Neon tubes and strips can be obtained from him and the source of material for making the color tubes has also been fully explained. Visiting a plant where one is already in use would not only increase the desire for it, but would help in getting construction underway.

Ten Answers

To Ten Type Metal Questions

By WILLIAM H. POLLOCK*

**Manager, Eastern Type Metal Dept., Federated Metals Div., American Smelting and Refining Co.*

TYPE metals must perform satisfactorily despite the increasingly varied demands imposed on them by modern automatic typecasting machinery. Each alloy must be individually suited for the typecasting process for which it is utilized. The ideal type metal should have all the following characteristics:

1. Good fluidity at the proper casting temperature.
2. Ability to reproduce sharp details.
3. Ability to withstand wear and pressure.
4. Low drossing rate.
5. Ease of melting.
6. Minimum segregation tendencies.
7. Ability to produce a dense and uniform grain structure.
8. Narrow solidification range.
9. Economy in use.

There is no one alloy which can meet all these qualifications for every type casting operation. Constant research, however, has yielded the specifications which guarantee the optimum performance for each set of conditions. It has been found that even the use of the highest purity lead, tin and antimony—the basic ingredients of any type metal—gives no assurance of satisfactory performance. So-called commercially pure metals contain impurities which, even in minute quantities, can be extremely harmful. These impurities need not necessarily be excluded entirely but they must be held within rigid limits.

Controlling the nature and quantity of impurities in the metal is extremely important since they directly affect drossing rate. A high drossing rate can lead to dirty type and mechanical trouble.

Each method of typecasting presents an individual problem in the selection of metals. For instance, Linotype metal requires an alloy with good fluidity and resistance to segregation so that the molten metal will flow satisfactorily through extremely small orifices. Stereotype, on the other hand, requires an alloy with strength and hardness, but does not require so high a fluidity. Monotype is of even higher hardness and strength requirements because the type must generally wear for long press runs. Foundry type carries the most severe requirements of all type metal groups, calling for ex-

"... Never mind how. Just take my word for it, I'll outsell all your salesmen!"

ceptionally good hardness, durability and strength. Electrotype service requirements are not as high since the metal is used for backing purposes.

Understanding these fundamentals, how would you answer the following questions?

Questions and Answers

1.—(Q) What is the most likely cause for the freezing of molten type metal—particularly Monotype—around nozzles?

(A) The channel into the nozzle or mouthpiece is lower in temperature than the freezing temperature of the metal. The antimony-rich part of the type metal freezes most readily at this point (below 554 deg. F.), so that Monotype, which has a relatively high antimony content, is very likely to freeze unless the nozzles are adequately heated.

2.—(Q) Is dross really bad? Or just impurities and "dirt" which have separated from the good metal?

(A) Dross represents a loss of metal from your bath and that is always bad regardless of the cause. Some drossing will always occur, because molten metal combines with the oxygen in the air to form oxides, much as iron rusts (forms iron oxide) when uncoated. Some impurities in type metal cause increased rates of drossing and, in general, it is this condition that is described when a metal is called a bad drosser. To hold dross formation to a minimum: Melt only type metal, keep impurities out, do not overheat, stir gently, flux metal correctly.

"Tinfoil" in Metal

3.—(Q) What does "tinfoil" wrapping from candy and cigarettes do to type metal when thrown into the melting pot?

(A) It increases the drossing rate and produces frosty type faces. Explanation: Most foil wrappers are made of aluminum. One third of an ounce of aluminum in one ton of type metal will raise the drossing rate and cause frosty type faces. Brass rules, discarded engravings and electros, containing even trifling quantities of copper, zinc and nickel, will cause the same troubles.

4.—(Q) In re-melting, is it correct to heat the metal by 25 deg. to 50 deg. F. over normal casting temperature?

(A) On remelting it is considered good practice to heat the type metal 25 deg. to 50 deg. F. above the normal casting temperature in order to obtain a uniform composition throughout the bath. Heating the metal above the recommended temperature causes excess dross formation which means loss of tin and antimony—and dollars. The use of a pyrometer will help greatly in your efforts to regulate melting temperatures accurately.

5.—(Q) Should stirring of the melt be hard or easy?

(A) Stir thoroughly but as gently as possible. Hard, rapid mixing causes splashing which, in turn, results in excess drossing. Stir in such a way that the wet and heavy lumps of dross are pushed back down into the melt where the good metal contained in the lumps can be melted out by the higher heat.

Purpose of Flux

6.—(Q) When you use a flux, how does it change the composition of your type metal?

(A) The purpose of a flux is to reduce the amount of good type metal trapped in dross. The flux does not change the composition of the bath; it assures a better separation of the metal from its oxides. It decreases dross.

7.—(Q) What is the best time to skim off dross?

(A) After proper fluxing there will remain on top of the melt a dry and powdery dross. This is relatively free of good metal. It should be skimmed off carefully to avoid trapping good metal with the powder.

8.—(Q) Does type metal deteriorate with every melting?

(A) Yes. No matter how carefully each melting, fluxing and skimming are done, some tin and antimony will be lost. They should be replaced to maintain the metal at top quality. This can be done with so-called "adjusting alloys", like Federated Mor-tin.

9.—(Q) How do you know how much "adjusting alloy" to add when you want to tone up your melt?

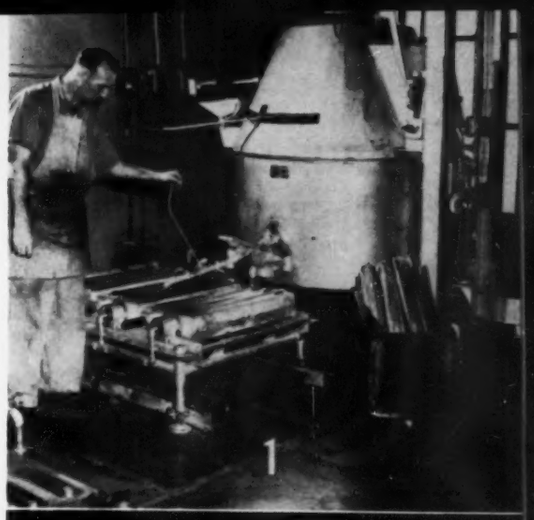
(A) The composition of these alloys, in Federated's case, is carefully regulated so that the addition of 1 lb. puts back into the metal supply just what is lost in 1 lb. of dross. Mor-tin Monotype, for example, contains the same ingredients as regular Monotype metal, except that tin and antimony are present in greater than normal proportions just as in dross. Therefore, when you replace 10 lbs. of dross with 10 lbs. of Mor-tin, you have brought both quantity and quality of your Monotype metal back to its original state.

10.—(Q) Should you flux the melt again after adding adjusting alloy?

(A) No. Gently stir the "adjusting alloy" into the melt and let the metal stand for 20 min. to 30 min. before casting. You can count on good results. Your melt has been "toned up."

To Start Industry Census

Early in 1955, the Bureau of the Census, U. S. Dept. of Commerce, will conduct the Censuses of Business, Manufacturers and Mineral Industries. Of chief interest to the printing industry will be the censuses which fall in the following classifications: Printing, publishing and allied activities; Newspaper publishing and allied activities; Converted paper and board products; Printing ink; and Printing-trades machinery and equipment. These censuses will provide facts about industry on which may be based plans for markets, production schedules, distribution channels, reference data, etc. The censuses to be taken in 1955 will bring up to date and improve statistics from previous censuses which now are from 7 to 15 years old. The Census Bureau reminds businessmen the value of the censuses depends largely upon prompt and accurate reporting of their business.



(All photos courtesy New York (N.Y.) *Journal-American.*)

1.—Typical room for remelting type metal. Metal is being cast into Margach bars.

2.—Monotype casting machine in operation.

3.—Removing curved newspaper plate from Wood Automatic casting machine.

Adjectives of Maintenance Cause Confusion

By CHRISTIAN E. BURCKEL*
*Christian E. Burckel & Assoc., Yonkers, N.Y.

MAINTENANCE is being performed in every industrial plant everywhere, every day, and has been a part of every management's concern since its first department was ready for occupancy.

The term "maintenance" travels under many aliases and sometimes an activity (like "operating" a piece of equipment) isn't even recognized as a part of the maintenance procedure.

Many adjectives confuse the issue and cause executives to shy away from the problem because of the implication of increased costs. The chief offenders are the adjectives "productive" and "preventive." The first takes in practically all activities of an organization and the second deals with only a very small portion of equipment maintenance.

Productive Maintenance

Productive maintenance takes into account the problems of materials and supplies procurement (purchase, delivery and storage), work scheduling (deadlines, priorities, department and machine capacities, inter-departmental traffic), personnel (and all of its problems), equipment maintenance (operation, inspection, adjustment, lubrication, repair, overhaul), plant maintenance (porter, painting, plumbing, heating, cleaning, electrical, etc.), quality control, packing and shipping, etc. In short, every function of the organization except sales and accounting.

Preventive and Corrective Maintenance

On the other hand, preventive maintenance deals with only one part of the fourth echelon (corrective maintenance). The replacement of a defective unit or sub-assembly, without other disassembly (and painting to overcome corrosive action), to permit the machine to continue to perform according to design, is called corrective maintenance.

If on inspection it is found that a part may break down and then need replacement, the procedure of replacing it before failure occurs is called preventive maintenance. For instance, replacing engine oil in the crankcase of an automobile every thousand miles; replacing badly work tires before they blow, are preventive maintenance procedures. It is a moot question whether oil has lost its lubricating and cooling qualities at the end of a thousand miles of travel, but experience over the years has taught motorists that it doesn't pay to gamble with the power plant of an automobile. The odds of a dollar and a half's worth of oil against a couple of hundred dollar repair bill plus the inconvenience of being afoot find few bettors.

Matter of Personal Judgment

The Committee on Maintenance of the Research and Engineering Council of the Graphic Arts Industry has recognized the ramification of productive maintenance which makes each plant a separate problem to be solved with its organizational and physical framework and has also recognized that preventive maintenance is largely a matter of individual personal judgment.

Application of Principles Does Not Change

Consequently, at its Cleveland meeting held on July 18, 1953, it decided to limit its research and study to the problems involved in the maintenance of productive equipment and has devoted its deliberations to establishing the elements of that area of the Graphic Arts Industry, because the subject is specific, and leaves very little to the individual judgment. Furthermore, the application of the principles involved in these elements does not change from plant to plant or from machine to machine.

Automation Changing the Picture

The need for the study of the elements of maintenance is gaining greater importance with the trend toward automation, (the utilization of automatic machines and equipment to replace operative personnel). Furthermore, this ever-increasing trend (toward automation) is shifting the emphasis from the operation to maintenance of equipment. In the future, operative skill must be replaced with maintenance know-how.

Furthermore, the only difference between what is constantly going on in the field of maintenance and what this committee is advocating is the idea of planning maintenance in much the same manner as scheduling production.

Three groups are vitally concerned with the dependable functioning of equipment:

(1) Owners of the equipment,
(2) Manufacturers of the equipment and
(3) Operators of the equipment.

The owners of the equipment are interested in attaining maximum production and maintaining their capital investment at a minimum cost.

The manufacturers of the equipment have a vested interest in the reputation of their product, as developed by its continued trouble-free operation.

Craftsmen are interested in job security, which has its foundation in a profitably operating plant.

Only through a sympathetic understanding by each group of the other group's problems can they coordinate their efforts and cooperate to protect their common interests.

Research Developments Fail For Many Reasons

(Abstracted from an address delivered by Richard W. Gardner, Jahn and Ollier Engraving Co., Chicago, before the 35th Annual Convention of the Intl. Assoc. of Printing House Craftsmen, Philadelphia, August 1954)

MOST of the technological research and development in photoengraving techniques and processes has been carried on by manufacturers and suppliers. In many cases these have not been sufficiently tested under practical working conditions to determine their practicability and as a result many ideas have been rejected by the trade, which with different handling might have proved most beneficial.

Some have also been introduced which effected more than just the photoengraver and failed due to the lack of cooperative effort on the part of all concerned. Often claims for new processes are misunderstood with a consequent disappointment in final results.

There is always the fear of technological unemployment which hinders the adoption of new ideas, although it is my opinion that this is all too often given for more weight than it rightly deserves. Fortunately for us, however, these manufacturers and suppliers are persistent in their research and much valuable help and assistance is available for those who desire to make use of it.

Fast Reproduction

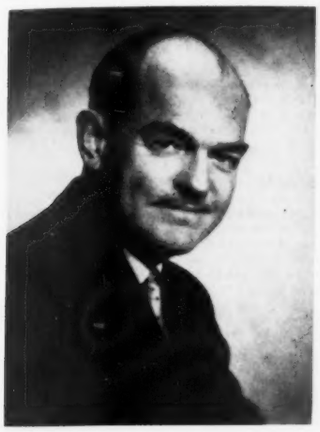
On page 1 of its Wednesday, Dec. 15 issue, The Milwaukee (Wis.) *Journal* printed in three colors a picture of a building in flames. The picture was taken about 5:30 o'clock in the morning. The picture measured 4 col. wide by approx. 9 in. deep. The three color picture was reproduced in the paper in 4 hrs. and 45 min. after the photographer made the shot. This is said to be one of the fastest times on record for a multiple color picture in any newspaper.

Hoe Builds Saw Plant

Ground has been broken for a 30 thousand sq. ft. plant being constructed in Portland, Ore., by R. Hoe & Co., Inc., for the manufacture of hand, chisel-tooth and solid saws. Repair work on all types of saws will be handled. Twice the production capacity of Hoe's present rented Portland facilities will be permitted in the new factory according to William A. Harloe, saw division manager.

William H. Walling

William H. Walling was elected President of Printing Industry of America, Inc., at the organization's recent convention held in Detroit. Mr. Walling is chairman of the board of Rogers - Kellogg - Stillson,



Inc., New York lithographers and printers; chairman of the board of the Lanston Monotype Corp. and president of the Monotype Co. of Canada, Ltd. He is past president of the New York Employing Printers Assoc., and of the Printers League Section of the same organization. Last year, he was elected vice president of PIA and the year before served as its secretary.

Son of a lawyer and newspaper publisher, Mr. Walling began his career at the early age of six, at which time he bartered 50 calling cards and a subscription to his father's country newspaper for a Thanksgiving turkey. He entered the printing industry after World War I and is now in his 35th year with the same group of companies.

As a first lieutenant in the Air Force, he served in France during World War I, and as a lieutenant colonel of the Air Force in the South West Pacific during World War II. He is holder of the Bronze Star and the Air Medal.

L. C. Herkness, jr.

Elevation to the presidency of Charles Eneu Johnson Co., Inc., ink manufacturers, was recently conferred upon L. C.

Herkness, jr. He succeeds his father L. C. Herkness who was named chairman of the board. Herkness, jr., joined the Johnson firm in 1948 and was appointed vice president and sales manager in 1951. He is a graduate of the William Penn Charter School and the U. S. Military Academy, and attended the University of Pennsylvania. He served in the U. S. Army from 1939 to 1948. During World War II, Herkness, jr., was a lieutenant colonel with the Second Armored Div. and participated in the North African and Sicilian campaigns and the Normandy invasion. He was awarded the Distinguished Service Cross and the British Distinguished Service Order. His company is this year celebrating its 150th anniversary.

The Spotlight is on

John M. Wilson

The appointment of John M. Wilson as deputy public printer was recently announced by U. S. Public Printer Raymond

From left to right, Public Printer Raymond Blattenberger looks on as John M. Wilson receives the oath of office as deputy public printer administered by S. Preston Hipsley, director of personnel at the Government Printing Office.

Blattenberger. Wilson has been employed in the Government Printing Office, Washington, D. C., for 30 years and had been serving as assistant night production manager prior to this appointment. He is a graduate of Sterling College, Sterling, Kan., and resides at 5040 Klingle St., N. W., Washington, D. C. In his announcement, Blattenberger praised Wilson's long service as an executive in the production divisions of the GPO.

Gordon Dixon

President of the 1955 Pacific Coast Mechanical Conference to be held September 9-11 in San Francisco is Gordon Dixon, plant superintendent of the San Rafael (Calif.) *Independent-Journal*. With over a quarter of a century actual experience in the printing trades, he is well qualified for the active role he's played in supporting and organizing mechanical conferences. Dixon, unlike most printers, migrated from a large city to the country print shop where he learned printing. He has worked in commercial printing plants, and weekly

and daily newspapers in California. The many recognitions for excellence awarded his paper, the *Independent-Journal*, is evidence of the craftsmanship he contributes to the product turned out. A new pressroom in which has been installed a new 32 page Goss Universal press is the most recent addition at the *Independent-Journal*. Dixon is well known in that part of the country for his activity in hunting and fishing. He and his committee are now preparing the groundwork for the 1955 Conference which he hopes will be one of the finest ever presented on the west coast.

J. R. Jackman

The president of The Rumford Press, Concord, N. H., J. R. (Dick) Jackman, has been elected vice president of Printing Industry of America, Inc. He was so named during PIA's recent annual convention held in Detroit. Jackman first joined the

Rumford organization in 1922, but left there in 1927, only to return 13 years later as treasurer. He was elected president of that company three years ago. Vice Pres. Jackman has served as a director of Printing Industry of America and as a member of PIA's Executive Committee; chairman of the PIA Private Plant Committee and of its Resolutions Committee; also as director and member of the Executive Committee of the Union Employers' Section of PIA.

Graphic Arts Equipment and Supplies

Literature for the Asking

Keep Yourself Informed. The folders and bulletins listed below all pertain to modern equipment, supplies, processes and/or methods. These have been prepared especially for plant managers, superintendents and foremen. Please ask for the pieces selected by number and send your request to Literature Dept., *Printing Equipment Engineer*, 1276 West Third St., Cleveland 13, Ohio.

Composing Room

MOUTHPIECE SCREW KIT

Drilling out broken mouthpiece screws on linecomposing machines without injuring the crucible may be performed with the Align-A-Drill Kit, described in literature offered by Fisk Industries. The tools in the kit are designed for all 30 pica or 42 pica Linotype machines. Included in the kit are a jarring rod, counterbore, twist drills, starting and bottoming taps, drill guides and locating and holding screws. Please mention PEE No. 1L when requesting a copy.

NO STRING TIE-UP SYSTEMS

Spring steel galley end and side locks, and regular and permanent adjustable tie-ups are illustrated and described in bulletins prepared by Riehl Galley Lock Co. The devices are designed to replace the use of string in tying up made-up forms on galleys. Sizes are listed of the standard galley locks available. Please mention PEE No. 2L when requesting a copy.

RANGEMASTER BULLETIN

Linotype's Rangemaster Mixer Models Nos. 35 and 36 are discussed in well illustrated 8 page folder, size $8\frac{1}{2}$ in. by 11 in., published by Mergenthaler Linotype Co. For display and body type composition. Mechanical features are discussed. Inserted is a two page newspaper sheet for which the display and body type were produced entirely on Rangemaster Linotypes. Please mention PEE No. 3L when asking for a copy.

INFRARED PROOF DRIER

Portable and adjustable model of The J. E. Doyle Co.'s Infrared Proof Drier is described and illustrated in one page bulletin. Self-timing mechanism for rush proofs. Used in trade composing rooms and engraving plants. For a copy, please mention PEE No. 4L in your request.

METAL REMELTING CATALOG

The 16 page illustrated catalog published by Nolan Corporation is descriptive of type remelting and stereotype metal melting equipment. The Nolan line consists of furnaces, molds, fuel devices, pumps, dollies, agitators and tools pertinent to the remelting operation. Also described is the Nolan equipment for stereotype plate casting equipment. The automatic loader for metal pots is described. For a copy please mention PEE No. 5L in your request.

TABULAR BROACH

The machine for broaching tabular rule is illustrated and described in the illustrated four page bulletin published by Universal Mono-Tabular Corp. Bulletin tells how rule system is used. For a copy please mention PEE No. 6L in your request.

PLATE, TYPE, SLUG GAUGES

The various kinds of plate, type and slug gauges made by Vandercook & Sons, Inc., are illustrated and described in a four page well illustrated bulletin. A saddle is provided for measuring thickness of curved plates. For a copy please mention PEE No. 7L in your request.

METAL REMELTING POTS

An eight page, two-color booklet which is descriptive of Kemp gas and electric remelt pots has been issued by The C. M. Kemp Mfg. Co. Parts of the booklet deal with Kemp's automatic metal loader and metal draw-off valve. Detailed drawings of both are included. Another part concerns the Kemp immersion heating unit. Specifications of all pot sizes are listed. The Kemp industrial carburetor for gas models is also explained. Please mention PEE No. 52L when requesting a copy.

CLEANING TOOLS

A bulletin which is descriptive of improved cleaning tools for linecasting machines, magazines and matrices is being offered by Linotype Parts Co., Inc. Nylon bristle brushes for cleaning hard-to-reach parts on linecasting machines and matrix magazines are included. Also shown is a circular brush and cleaning stick for use on matrices. The four page bulletin measures $3\frac{1}{2}$ in. by $6\frac{1}{4}$ in. Please mention PEE No. 53L when requesting a copy.

MATRIX IDENTIFICATION

The Clarity Company has available a two page letterhead size illustrated folder descriptive of Magic Matrix Black for contrasting reference edges of linecomposing machine matrices. For a copy please mention PEE No. 8L in your request.

Platemaking

TEMPERATURE CONTROLLED SINK

The Chemco Photoproducts Co.'s Controlled Temperature Darkroom Sink is described and illustrated in a four page folder. In addition to a halftone illustration of the sink, there is a schematic diagram of the cooling and temperature control equipment which is a part of the sink itself. For a copy please mention PEE No. 9L in your request.

METAL CUTTING EQUIPMENT

A rather elaborate die-cut folder $23\frac{3}{4}$ in. diam. with projecting die-cut edges is available from J. A. Richards Co. Printed in blue and black ink, copiously illustrated. Shown are Mortising Machine, Curved Plate Router, Heavy Duty Routing Machine, Radial Router, Electromatic Super-Saw, and the Richards Clipper Saw on which many fabricating operations can be done. Features described. For a copy please mention PEE No. 10L in your request.

PLATE SAWS

Two models of the Rouse plate saw are described in a bulletin issued by H. B. Rouse & Co. The saws are designed for use in composing rooms, photoengraving, electrotype and stereotype departments. They will handle a variety of material including Fairchild plastic plates, Vandercook base, shell casts, etc. It is stated in the bulletin the 24 in. model automatically cuts up to 24 in. of type high work in 27 sec.; the 15 in. model automatically cuts up to 15 in. of type high work in 17 sec. Operating details are listed in the bulletin. Please mention PEE No. 11L when requesting a copy.

FILM EXPOSURE GUIDE

An exposure guide for use with Colomat diazotype film for color proofing from color separation positives has been prepared by Unitronics, Incorporated. The guide is made up in file-folder form for convenience in filing Colomat color strips for future reference. Included are suggestions for preparing Colomat color swatches, proof making and equipment for processing the film. Please mention PEE No. 12L when requesting a copy.

PLATE FINISHING EQUIPMENT

Various models of Ostrander-Seymour plate finishing equipment are illustrated and described in a 12 page booklet prepared by Ostrander-Seymour Co. Included are routing machines, beveling machine, saw and trimmer, cabinet sawing machine, jig saw and drilling machine and type high planer. Specifications are included. Please mention PEE No. 13L when requesting a copy.

ROUTER BIT SHARPENER

Wesel Mfg. Co. explains the operation of the Wesel Automatic Router Bit Sharpener in a recently released bulletin. The machine grinds the bit on its side rather by cutting off the dull end of the bit. The machine will accommodate any bit with a $\frac{1}{4}$ in. shank and uses a duplicate router bit as the master bit. Please mention PEE No. 14L when requesting a copy.

SAW BLADES

A reprint of the article *Graphic Arts Saw Blades—What You Should Know About Them* by Robert A. Blackburn, President, Automatic Saw Sharpening Co., which appeared in *Printing Equipment Engineer*, is available from the Automatic Saw Sharpening Co. In the article, Blackburn discusses the various types of saw blades used in the Graphic Arts industry. Please mention PEE No. 15L when requesting a copy.

COLOR CAMERAS

The 24 in. and 31 in. Consolidated Precision Color Cameras are the subject of two color, eight page folder prepared by Consolidated Photo Engravers and Lithographers Equipment Co. Features of the two models of the camera are illustrated and described. Specifications and a floor plan diagram appropriately marked are included. Please mention PEE No. 16L when requesting a copy.

ETCHING POWDER HANDBOOK

Detailed information on the use of Mallinckrodt etching powder is presented in a 24 page handbook issued by Mallinckrodt Chemical Works. A section is included on the special problems encountered in the use of etching powder. The instructional text is accompanied by illustrations. Please mention PEE No. 17L when requesting a copy.

BLOCKING MATERIAL

A flush plate mounting base known as Wellite for mounting engravings and electrotypes is the subject of a four page bulletin prepared by Wells Mfg. Co. It is claimed in the bulletin that the mineral mounting base coated with Wellco adhesive will not warp and is not affected by heat. Instructions for using Wellite are included. It is available in standard sizes of 16 in. by 24 in. Please mention PEE No. 18L when requesting a copy.

ETCHING MACHINE

The Acme One-Bite Etcher is designed to etch halftone or line plates or both on a combination plate in a single operation, according to a bulletin issued by Acme Teletronix, Div. of NEA Service, Inc. A bi-metal plate (zinc coated magnesium) and a special etching chemical are used with the machine. The Acme Etcher performs the etching operation in 6 to 8 min. for halftones; 15 to 20 min. for line work or combination plates, depending on etching depth required. Please mention PEE No. 19L when requesting a copy.

OFFSET PRESS CHEMICALS

A 12 page booklet in which is outlined procedures for preparing fountain solutions, gumming plates, applying asphaltum, washing blankets and restoring images which have gone blind is offered by Harris-Seybold Co. Please mention PEE No. 20L when requesting a copy.

ZINK CUT CEMENT

A descriptive bulletin on Booth's Zink Cut Cement has been prepared by The E. A. Booth Rubber Co. Directions, accompanied by illustrations, for applying the adhesive to cuts are included. Directions for removing the cut from its base after use are also given. Please mention PEE No. 49L when requesting a copy.

OFFSET PROOF PRESSES

A descriptive eight page bulletin about S&S Flat-bed Offset Proof Presses is available from Amsterdam Continental Types and Graphic Equipment Inc. Specifications are included, as well as illustrations of the various features of the presses. Manually operated and motor driven models are offered. Three models and five sizes of S&S presses are available. Please mention PEE No. 50L when requesting a copy.

FILM HANDBOOK

The selection and application of Ansco materials to photomechanical requirements is described in a 60 page handbook published by Ansco, Div. of General Aniline & Film Corp. Called the Ansco Graphic Handbook, it includes parts on Ansco films for Graphic Arts photography, film processing, Ansco chemicals and formulas, etc. Illustrations accompany

the text matter. Please mention PEE No. 43L when requesting a copy.

Pressroom

PROCESS PRINTING AND INKS

A reprint of a talk on *Process Printing and Inks* given by F. L. Wurzburg, jr., sales engineer, Printing Ink Div., Interchemical Corporation, has been issued by Interchemical. The talk was presented at the Technical Conference on Color Photography and Color Printing held in conjunction with the 1954 meeting of the Research and Engineering Council of the Graphic Arts Industry, Inc. Please mention PEE No. 21L when requesting a copy.

GENERAL PRESS CATALOG

A 48 page general press catalog, 8½ in. by 11 in., well illustrated and beautifully printed in color is available. Published by Champlain Company, Inc. Illustrated and described are rotogravure, flexographic and letterpress presses. Also described and illustrated are delivery and inline equipment such as tension rewinds, rotary sheet cutters, cutting and creasing punches and dies, rotary embossers, etc. Please mention PEE No. 22L when requesting a copy.

LINEUP AND REGISTER TABLE

Graphic Supply Co. offers a bulletin on the Hulen lineup and register table in which are included illustrations of the table as well as its features. The working area of the table is available in two standard sizes as follows: 31 in. by 43 in. and 43 in. by 67 in. Please mention PEE No. 23L when requesting a copy.

ROTARY PRESS NUMBERING HEADS

Wm. A. Force & Co., Inc., has available for form and ticket printers and other users of numbering heads, a 16 page manual on *Operating and Maintenance Procedures of Rotary Numbering Heads.* Included are descriptions of MH and DU rotary numbering heads, cams and holding rings. Sections of the manual deal with the operation of the machine in cam, disassembly and care of numbering machines, trouble shooting and information on getting the most from numbering machines. Recommendations are also set down for a repair control system. The manual is well illustrated. Please mention PEE No. 24L when requesting a copy.

PRESS HANDBOOK

The basic specifications of Miller letterpress and offset presses are provided in a 24 page handbook offered by Miller Printing Machinery Co. Sheet, chase, feeder and bed sizes, weight and speed are among the information listed for each press. A floor plan diagram with space measurements and a picture of the press are included with each listing. The handbook is thumb indexed for convenient reference. Please mention PEE No. 25L when requesting a copy.

SPECIMEN TYMPAN PAPER

The Corkpak Co. has available upon request a specimen of Corkpak Drawsheet and Tympan Paper, 3 in. by 8½ in. Made in 0.006 in., 0.008 in. and 0.010 in. thicknesses. Qualities claimed are stated. For a copy please mention PEE No. 26L in your request.

ELECTROTAB AUTOPASTER

With pertinent diagrams and halftone illustrations, the six page folder published by Wood Newspaper Machinery Corp. is descriptive of Wood's Fully Automatic Electrotab Autopaster for splicing new paper rolls on the press to expiring rolls to permit continuous press operation. For a copy please mention PEE No. 27L in your request.

ROLLER FOLDER

Ideal Roller & Mfg. Co. has issued a folder on Synthox rollers for letterpress presses. In the folder are two charts showing comparative annual roller cost for a five year period of composition and Synthox rollers on the Miehle 41 Single Color Press and the ATF Little Giant 6. Impressions per hour between composition and Synthox rollers are also compared along with a description of Ideal's rollers. Sponsor states rollers are made with a concentric, soft, pliable base and a face of synthetic material. The surface can only be removed by grinding. For a copy, please mention PEE No. 28L in your request.

PORTABLE INK FOUNTAIN

Capital Tool & Mfg. Co.'s illustrated four page bulletin contains descriptive matter about the Capco Portable Newspaper Press Ink Fountain. Fountain supplies color ink to printing press units as selected. For a copy please mention PEE No. 29L in your request.

COMBATTING STATIC

Several claims for static eliminating equipment together with pictures of nine Simco installations on Graphic Arts equipment are presented in a four page letterhead size bulletin published by The Simco Co. Please mention PEE No. 30L in your request.

CHAIN DRIVES IN PRINTING INDUSTRY

A four page illustrated bulletin, letterhead size, issued by Ramsey Chain Co., is descriptive of Ramsey Chain Drives in the printing industry. An explanation of the Ramsey roller bearing joint is presented as well as a list of users of equipment driven by the Ramsey Chain Drives. For a copy please mention PEE No. 31L in your request.

BEARING BULLETIN

SKF Industries, Inc., recently published in letterhead size 10 page well illustrated bulletin purposes and data regarding the SY Unit Pillow Block, the Single Row Ball Bearing Aligning Unit and the FY Unit Flanged Mounting. Design and purpose of each is explained. Load ratings for each are given. For a copy please mention PEE No. 32L in your request.

AQUATROL BULLETIN

If you are interested in a method for removing excess water from offset press inking systems, you will want to have a copy of the 12 page illustrated bulletin entitled *Facts About ATF Aquatrol*, published by American Type Founders, Inc. Bulletin contains information as to how Aquatrol operates, how it works and what it will do. For a copy please mention PEE No. 33L in your request.

V-50 VERTICAL PRESS

Miehle Printing Press & Mfg. Co. has prepared a colorful 20 page booklet on its Model V-50 Vertical cylinder press. Numerous illustrations which show features of the press as well as the press itself are included. Other illustrations show the 14 steps followed in making a changeover from one job to another. As explained in the booklet, the press is designed for printing a variety of material from folders to specialty items. Specifications and a detailed floor plan are also included. Please mention PEE No. 51L when requesting a copy.

CYLINDER PRESS BULLETIN

The features of the Original Heidelberg 21 in. by 28 in. Cylinder Press are described in a three color folded broadside prepared by Heidelberg Automatic Presses. Explained in the broadside are operations which can be performed on the press including a new method of numbering, embossing, hot embossing, die cutting and carbon ink printing. Features of the press covered are the inking distribution system, impression, register, makeready, automatic washup, central lubrication, sheet control, changeovers, etc. Standard equipment and specifications are also listed. Illustrations of the press and inking system are shown. Please mention PEE No. 46L when requesting a copy.

Bindery

IMPROVED FOLDING MACHINE

The Dexter Model SD Single Sheet Double 16 Folder, described in a bulletin prepared by Dexter Folder Co., is designed for operation in book and publication plants. It is designed to operate in conjunction with high speed 58 in. and 76 in. presses. Sheet size range extends from 25 in. by 36 in. to 44 in. by 58 in. It will produce 16 and 32 page signatures in sizes from 11 in. by 14½ in. max. to 4½ in. by 6¼ in. min. Mechanical features, specifications and a floor plan are included in the bulletin. Please mention PEE No. 34L when requesting a copy.

SPECIAL PERFORATOR

The Rosback Twenty-two Special Rotary Perforator is illustrated and described in a two page letterhead size bulletin, prepared by F. P. Rosback Co. Max. width of sheet is 25 in.; min. length of sheet is 6 in. From 4 to 12 perforations per in. may be done. For a copy, please mention PEE No. 35L in your request.

Mailing and Shipping

BUNDLE TYING MACHINES

Fully automatic bundle tying equipment for use in mailing and shipping rooms of newspapers and commercial printing plants is described in detail by Wiretyer Corporation in a six page, two-color bulletin. More than 20 illustrations are used in the folder to show the design features, typical installations and applications, operating cycle and space requirements of the Wiretyer bundle tying machines. Specifications of the machine's two models are also provided. Please mention PEE No. 36L when requesting a copy.

Miscellaneous

AIR CONDITIONING IN LITHO PLANT

This is a reprint of a previously published article entitled *Air Conditioning in a Modern Lithographic Plant*, by Wm. H. Junker. Published by Surface Combustion Corp. For a copy please mention PEE No. 37L in your request.

COLOR-DIFFERENCE METER

Gardner Laboratory, Inc. presents information regarding the Munsell-Reading Color-Difference Meter in a four-page illustrated letter size bulletin. The instrument is for rapid and direct determination of Munsell hue, value and chroma. For a copy please mention PEE No. 38L in your request.

MOTOR BULLETIN

A fully illustrated bulletin, consisting of 12 pages, 8½ in. by 11 in., has been published by Reliance Electric and Engineering Co. Built into this line of Super T motors ranging from 7½ h.p. to 250 h.p., is incorporated what is called Dynamic Response. In addition to general industry usage, motor applications in the printing industry for printing presses and other machinery in either unit or group drive, are included. When requesting a copy, please mention PEE No. 39L.

MATERIALS HANDLING CATALOG

Materials handling equipment designed for a variety of applications in printing plants are included in the contents of a 44 page catalog prepared by Economy Engineering Co. The catalog is divided into four parts as follows: Elevating tables and trucks; hand and electric lifters; drum racks; and Hi-Reach maintenance telescopers. The catalog is well illustrated. Specifications for the equipment are included with the descriptions. Of industry to the printing industry is the Economy LeveLifter mentioned in the catalog. This unit is designed for automatically maintaining a large lift of paper at working level at the press, paper cutter, work table, etc. Please mention PEE No. 40L when requesting a copy.

VISCOMETER BROCHURE

An eight page brochure illustrating the application of a new Viscometer to both laboratory and in-plant process and quality control has been announced by Drage Products, Inc. Two models are claimed by the maker as being designed to give specific values for rheological characteristics such as thixotropy, dilatancy and yield value and are designed to accurately detect the relationship of time and temperature to these flow properties, which are directly responsible for quality. Sponsor also states these instruments operate under extremes of pressure and temperature at shear rates up to 600 sec^{-1}; shear rates as high as 40,000 sec^{-1} are possible with special equipment. One section of the brochure is devoted to rheological characteristics which should be known for accurate duplication of product consistency. Please mention PEE No. 41L when requesting a copy.

TILTING FORK TRUCK

The Powrworker Hi-Lo Stack Tilting Fork Truck is the subject of a four page bulletin issued by Clark Equipment Co. Information listed under the detailed specifications for the truck include capacity, weight, speeds, dimensions lift, telescopic lift and tilt, wheels and tires, steering, drive, brake, drive control, and hoist and tilt control. The truck is illustrated in the bulletin accompanied by identification of its features. Please mention PEE No. 42L when requesting a copy.

TELETYPESETTER OPERATION

Automatic operation of linecasting machines through use of the Teletypesetter system is explained in a 24 page booklet produced by Teletypesetter Corporation. Entitled *More Type in Less Time*, the booklet includes a step-by-step description of the system from the tape punching unit through to the linecasting machine. Applications of the system on daily and weekly newspapers, and in commercial printing plants is explained. Other parts deal with wire transmission and questions and answers about Teletypesetter. The booklet is fully illustrated and printed in two colors. Please mention PEE No. 44L when requesting a copy.

DIRECT PRESSURE NYLON SHEET

To enable prospective users to see what it is like, Midwest Stereotype Supply Co. has attached a swatch of its Stereotype Direct Pressure Nylon Sheet to a briefly worded explanation. The Direct Pressure Nylon sheet is furnished in 22 in. by 26 in. size and is used in the molding combination between the mat and drying felt or molletons. Please mention PEE No. 45L when requesting a copy.

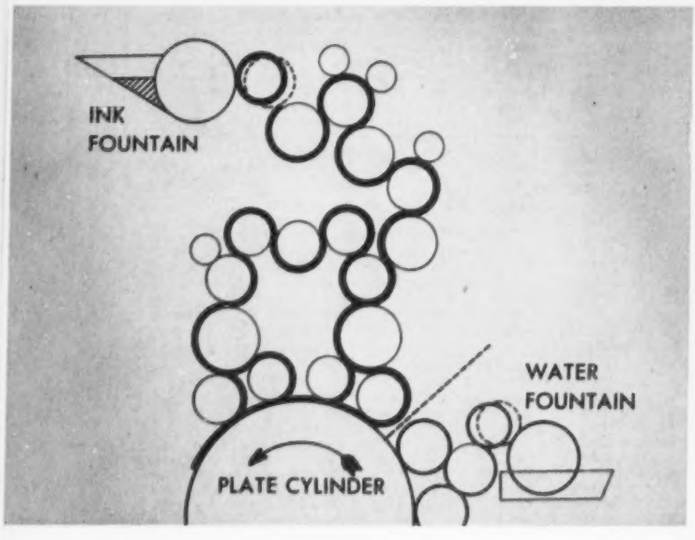
SAW TRIMMERS

The Morrison Model 3-A and Model 45 Saw Trimmers are discussed in a six page folder prepared by The Morrison Company. Features of these machines such as the 135 pica extension gauge, miter and lineup gauge, any-angle gauge, see-through guard, saw blade and grinding attachment, workholder vise, etc., are illustrated and described in the bulletin. Specifications of the two models and a list of standard equipment are included. One of the pages is devoted to showing other Morrison composing room equipment. Please mention PEE No. 47L when requesting a copy.

NON-SLIP FLOOR PLATE

The abrasive rolled steel floor plate known as A.W. Algrip is described in an eight page bulletin issued by Alan Wood Steel Co. Sponsor claims the abrasive grain in the floor plate provides a strong, tough, non-slip floor. Part of the bulletin is a table of maximum sizes of A.W. Algrip in which are included thickness, width, length and theoretical weight per sq. ft. in lbs. Other parts deal with applications and fabricating data. Another table concerns the allowable uniform load of the floor plate. Please mention PEE No. 48L when requesting a copy.

Patented multi-roll inkers in a Harris two-color, 50 x 72″ offset press



Harris Inker Design achieves thorough ink breakup and distribution. Long train of small diameter rollers gives properly balanced flow of ink to the plate, practically eliminates ghosting and "one-turn roller streaks." Heaviest ink flow is to form rollers closest to the dampeners. This, plus the Harris vibrating system, produces a smooth, uniform film of color from front to back of plate.

Correct Vibration is automatic in the Harris inker. Five vibrating rollers oscillate once for every two revolutions of the printing cylinders for proper ink breakup. Each vibrator changes direction at a different time in the cycle—an absolute must for good distribution. On the larger Harrises, the pressman can easily adjust amount of vibration to suit a particular job, or for split-fountain work.

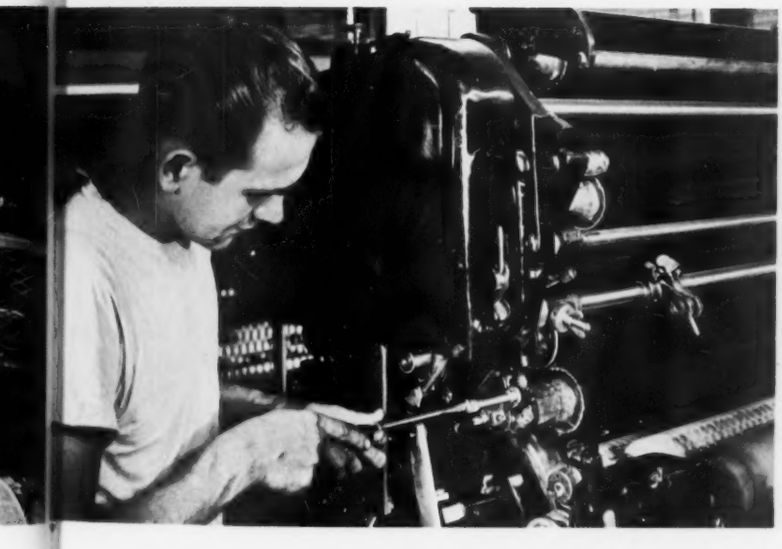
Here's why the Harris inker gives you a real competitive edge

On many offset presses you still find the traditional, storage-drum type of inker. But these old-fashioned inkers can't compete in today's printing markets. Printers can no longer afford the wasted time and wasted sheets caused by ghosting, uneven color, and "one-turn roller streaks". These are all faults of the old-style inkers.

With the new Harris multi-roll inker, the old inking problems are virtually eliminated. It is an important reason why most of the lithographers who make real money in the printing business today use Harris presses.

The patented new Harris inker gives a distinct competitive edge to the printer equipped with late-model Harrises. He can figure on faster makeready and fewer wasted sheets. He can figure on less down time caused by inking troubles. He can figure on both improved quality and improved quantity of good sheets in the delivery pile. He can figure on more profit per job.

The new multi-roll inker is built into all currently made Harris offset presses. Be sure you get the full story on this exclusive Harris feature, plus the many other profit-building advantages of Harris offset presses. Check with your Harris-Seybold representative now—or just clip and mail the coupon.



Complete Control of the Harris inker is in the pressman's hands. He can readily adjust his settings to get a light tint or a heavy solid to meet the special requirements of each job. And with the Harris inker, once the operator makes his settings, they stay set. Automatic inker throwoff is integrated with the Harris trip system—if press is tripped, ink stops feeding and form rollers lift off plate.

HARRIS-SEYBOLD COMPANY
4510 East 71st Street · Cleveland 5, Ohio

Press Size	No. of Color Units 1	2	4	5
14x20"				
17x22"				
21x28"				
22x34"				
25x38"				
35x45"				
42x58"				
50x72"				
52x76"				

Please send me more information on the Harris offset press model (s) check

Mr._____

Company_____

Street_____

City_____ Zone____

State_____

The design and manufacture of soundly engineered graphic arts equipment is the business of Harris-Seybold. Products of its divisions and subsidiaries include the leading lines of equipment for all three major printing processes—offset, letterpress and gravure.

HARRIS-SEYBOLD COMPANY

fine graphic arts equipment . . . for everybody's profit

HARRIS DIVISION • SEYBOLD DIVISION • CHEMICAL DIVISION • SPECIAL PRODUCTS DIVISION
C. B. COTTRELL & SONS COMPANY • MACEY COMPANY • HARRIS-SEYBOLD (Canada), LIMITED

SPPAI Meets

MORE than 3000 screen process printers, suppliers and manufacturers and others interested in the industry attended the Sixth Annual World Convention of the Screen Process Printing Assoc., Intl. held recently in St. Louis, Mo. The 1954 convention theme was Screen Process Printing as a Business and Screen Processors as Businessmen. More than 90 exhibit booths displaying modern equipment and supplies in the screen process printing industry exemplified the advanced mechanization of the industry. Included were exhibits of photographic reproduction methods and techniques in hand cut film. Displays of dryers designed for use with modern conveyors and screen presses indicated that the drying problem has been reduced to a matter of routine.

Key speakers emphasized the second part of the 1954 convention theme, . . . Screen Processors as Businessmen. John M. Wolff, jr., vice president of a printing and lithographic firm, spoke on a businessman's approach for successful business and the importance of the P. I. A. for advancement in the printing field. James P. Fabick, sales promotion manager of a St. Louis brewery, told processors what he expects from screen process printing and outlined salient selling tips to help them sell their customers. Albert Basse of Boston and John Key of Chicago, two screen processors, gave their fellow members practical and graphic outlines of how they satisfy their customers. At a session entitled, Promotion and Management Techniques for the Screen Process Shop, Selby J. Gillis, sales manager of a New Orleans screen process shop, Robert Hillard, partner in a St. Louis public relations firm, and George Horn, partner in a Chicago accounting firm, spoke on the practical approach to management and promotion. Dr. Kenneth McFarland,

William N. Fraser, St. Louis, 1954 Screen Process Printing Assoc., Intl. chairman (left) makes a presentation to 1955 officers: Milton Grant, Cleveland, president; Ralph Karsten, Chicago, vice president (right); F. O. Brant of San Francisco, treasurer (not shown).

Educational Director of the American Trucking Assoc., Inc., discussed the important factor of human relations in business success. In his keynote address, Pres. Stanley R. Snider, Sniders' Poster Process Co., after outlining future plans of the SPPA, Intl., spoke on expanded screen process promotion and market.

International officers elected were President, Milton Grant, Silk Screen Process, Inc., Cleveland; Vice President, Ralph Karsten, Screen Flock Industries, Inc., Chicago; Treasurer, F. O. Brant, The Velvetone Company, San Francisco.

Please take a look at your address on the wrapper in which *Printing Equipment Engineer* is sent to you at your place of employment. If it isn't correct, please tell us about it on a postcard.

Atmospheric Conditions In the Printing Plant

(By M. S. KANTROWITZ, Chairman, Research Committee, Washington (D. C.) Club of Printing House Craftsmen, Inc.)

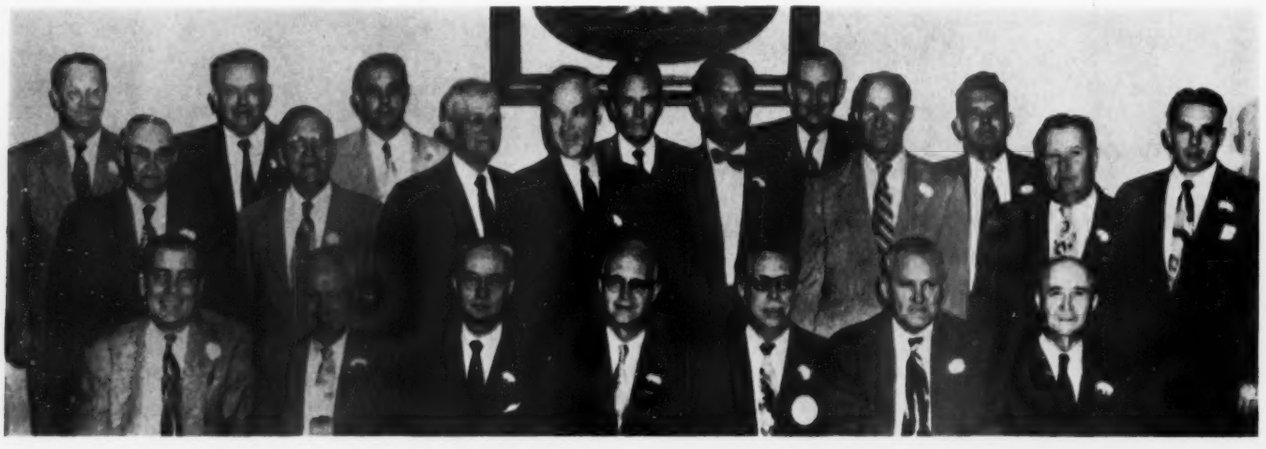
While there has been some disagreement among printers as to the best atmospheric conditions for printing and storing of paper, there is probably more uniformity practiced now than before advances were made in refrigerating apparatus for effecting constant control of these conditions in printing plants.

A number of years ago, your chairman made a canvass of some of the large printing plants in the United States and the results indicated a preferential relative humidity of 50% and a temperature of 70-75°F. as the optimum conditions for operations.

In a research program on the register of paper in offset lithography by the National Bureau of Standards, in cooperation with the Lithographic Technical Foundation, a study was made of elongation of the various samples of the lithographic papers under tension. Samples were conditioned and tested in atmospheres of 30, 45, 65 and 75% relative humidity. The following statement was made in Research Paper No. 480 of the National Bureau of Standards, which discusses the results of this study:

"The minimum variation between the expansion of the different papers occurred at 45% relative humidity and changes in expansion for changes in relative humidity were of smaller magnitude in the vicinity of 45% relative humidity than at other humidities used. These results indicate definite advantages in the selection of an atmosphere of approximately 45% relative humidity for lithographic plants."

The Graphic Arts Assoc. of Illinois, Inc. published a monograph on *The Critical Temperature for the Proper Operation of the Pressrooms of Commercial Printing Plants*. This booklet quotes some comments by authorities on the subject. A copy of this bulletin may be obtained from the secretary of the association.



Past Craftsman Presidents Honored—Twenty-one of the twenty-six Craftsmen who served as president of the Dallas (Tex.) Club of Printing House Craftsmen since the club was organized in 1927 were recently honored by the Dallas Club.

They are seated and standing in the order in which they served as president of the club. Seated left to right on the front row are: Emil Borak, Johnston Printing & Advertising Co., 1929-30; J. D. Harris, Exline-Lowdon Co., 1931-32; Rufford O. Evans, Evans Printing & Poster Co., 1932-33; J. P. Van Huss, Southwest Printing Co., 1933-34; Tommie R. Stovall, Jaggers-Chiles-Stovall Co., 1934-35; Paul Krueger, Samuel Bingham's Son Mfg. Co., 1936; John A. Scott, The John A. Scott Co., 1938-39.

Standing left to right on the second row are: T. J. Minehan, Etheridge Printing Co., 1939-40; Walter F. Shultz, past president of the International, 1940-41; Leven Deputy, The Dallas Morning News, 1941-42; L. C. Owens, Johnston Printing & Advertising Co., 1942-43; Paul Evans, Evans Printing & Poster Co., 1943-44; A. I. Simpson, Simpson Printing Co., 1944-45; Tommie R. Masters, Southwest Printing Co., 1946-47. Standing left to right on the third row are: J. Lefty Smith, The Egan Co., 1947-48; Clint M. Gober, The Bennett Printing Co., 1948-49; Raymond Rushing, The Southwest Tablet Co., 1949-50; Tom E. Henry, 1950-51; B. P. Ridgway, Haughton Brothers, 1951-52; Walter M. Summey, Johnston Printing & Advertising Co., 1952-53; Clarence Akers, The Egan Co., 1953-54.

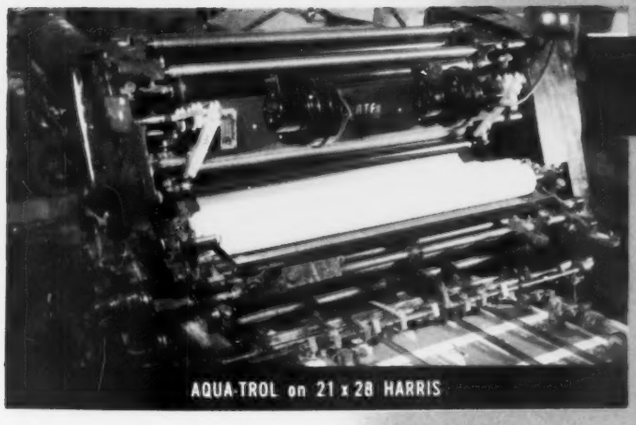
AQUA-TROL

Pressmen's Paradise

AQUA-TROL on ATF CHIEF 22

moisture-free ink

Many pressmen across the country are proclaiming Aqua-Trol the "missing link" in the offset process. Aqua-Trol is the practical, proven answer to one of the most dreaded variables in the offset printing process—*control of moisture* in lithographic inks.



AQUA-TROL on 21 x 28 HARRIS

strengthens color

Black ink prints jet black . . . colors print strong, bright and consistent throughout press run. Adjustment of ink and water controls are less critical and very seldom need attention after run is started. Color is maintained during reloading by allowing the press to idle with only the ink fountain shut off.

Better, more profitable printing from the widest line of processes . . .

GRAVURE . . . LETTERPRESS . . . OFFSET

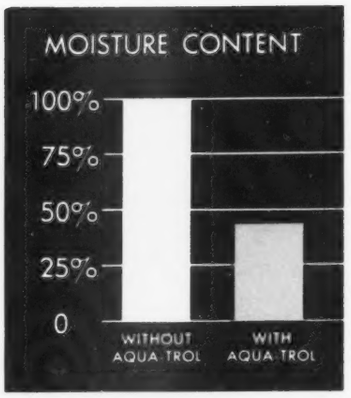
ATF

AQUA-TROL

AMERICAN TYPE FOUNDERS — 200 ELMORA AVENUE, ELIZABETH, N. J.
A Subsidiary of Daystrom, Inc.

See other side for more advantages . . .

AQUA-TROL



- STRENGTHENS COLOR
- EXTENDS PLATE LIFE
- REDUCES SPOILAGE
- SPEEDS INK DRYING
- INCREASES PROFITS
- EASY TO INSTALL

The answer to all press problems due to ink and water balance

AQUA-TROL on ATF-MANN L-136

Every pressman knows that *some* water from a plate surface will be transferred into the inking system. He also knows the *amount* of moisture will be largely dependent upon *his ability* to maintain a good balance between water and ink and that consistent good quality will demand his constant attention. Aqua-Trol relieves this critical problem by simply removing excess moisture from the ink at the proper place in the inking system with a controlled method of evaporation.

Aqua-Trol at work in the lithographic industry can help give it the stability of letterpress, the tone quality of rotogravure, and the flexibility of offset production.

AMERICAN TYPE FOUNDERS

200 ELMORA AVE., ELIZABETH, N.J.

PLEASE SEND AQUA-TROL LITERATURE AT ONCE TO:

NAME _____

MAKE AND MODEL OF PRESS _____

COMPANY _____

ADDRESS _____

CITY- STATE _____

ATF-3 — PEE

Don't Delay - Mail Today!

PRINTED IN U.S.A.

Ingenuity Overcomes Problems In Production and Maintenance

PROGRESSIVELY over the years printing plant production has become increasingly mechanized. Consequently, better production methods and equipment maintenance have been universal objectives of mechanical executives. It hardly seems necessary to state that equipment manufacturers have endeavored constantly to streamline operation of their machine. As time passes, practical operation of machines reveals that certain modifications in the original machine as received from the manufacturer are necessary. This is brought about by gradually changing conditions in the industry. In particular is this true in newspaper plants where the time element has become more important and where production workers must meet inflexible edition schedules.

Lately, the Teletypesetter with its high-speed operation has compelled radical changes in both operating procedures and machine maintenance schedules.

In some composing rooms, linecasting machine production speeds have been stepped up from let's say 7 line per min. for manual operation, to speeds ranging from 9 to 12 lines per min. for TTS use. Linecasting machine design has been altered to provide faster operation. But this increased operating speed has also brought with it the necessity for faster and improved maintenance methods. In the plant of the Miami (Fla.) *Herald* a number of devices have been developed by the combined efforts of the mechanical staff to assist both in improved production and machine maintenance. These have been installed by Mechanical Supt. William B. Sandlin(just recently retired)and Chief Composing Room Machinist Harry R. Greene. In fact, no claim for originality is made for all of the devices. Some have been adapted in modified form after seeing them in other plants.

Most of the devices described in this article are related in one way or another to composing machine maintenance. These ideas should prove of interest to others associated in any way with stepped-up machine maintenance.

Short Line Machine Stop

On TTS operated Intertypes at the Miami Herald, a short line machine stop has been devised. If a line is short on the tape or some character is not falling, naturally the line cannot be justified between the vise jaws and will not permit casting a slug. In such case, the regular pump stop functions normally to prevent a downstroke of the pot pump plunger. In addition, on such lines a device has been developed which will stop the machine at second elevator transfer position. That is, the elevator is arrested in its downstroke approx. 3 in. above the transfer channel, when the automatic transfer stop pawl in cam No. 10 depresses the upper stopping lever, the transfer levers not being permitted to transfer the matrix line from the first to the second elevator at transfer position. At the time of removing the matrix line from the second elevator bar, the tender also locks the spaceband transfer lever pawl on the transfer channel, and he also flips lever *A* (Fig. 12) to his right to reset the pawl *C* also (Fig. 12) so the device will function on the next short line.

As will be seen by looking at halftone (Fig. 5), the machine stopping device is mounted on the machine column with two hex. hd. screws (5/16-19x3/4 in.). The frame of the device is located on the machine column so the head of adjusting screw *D* (Fig. 12) is directly opposite pump stop lever U-186. This arresting of the second elevator downstroke is accomplished when the top of lever *A* (Fig. 12)

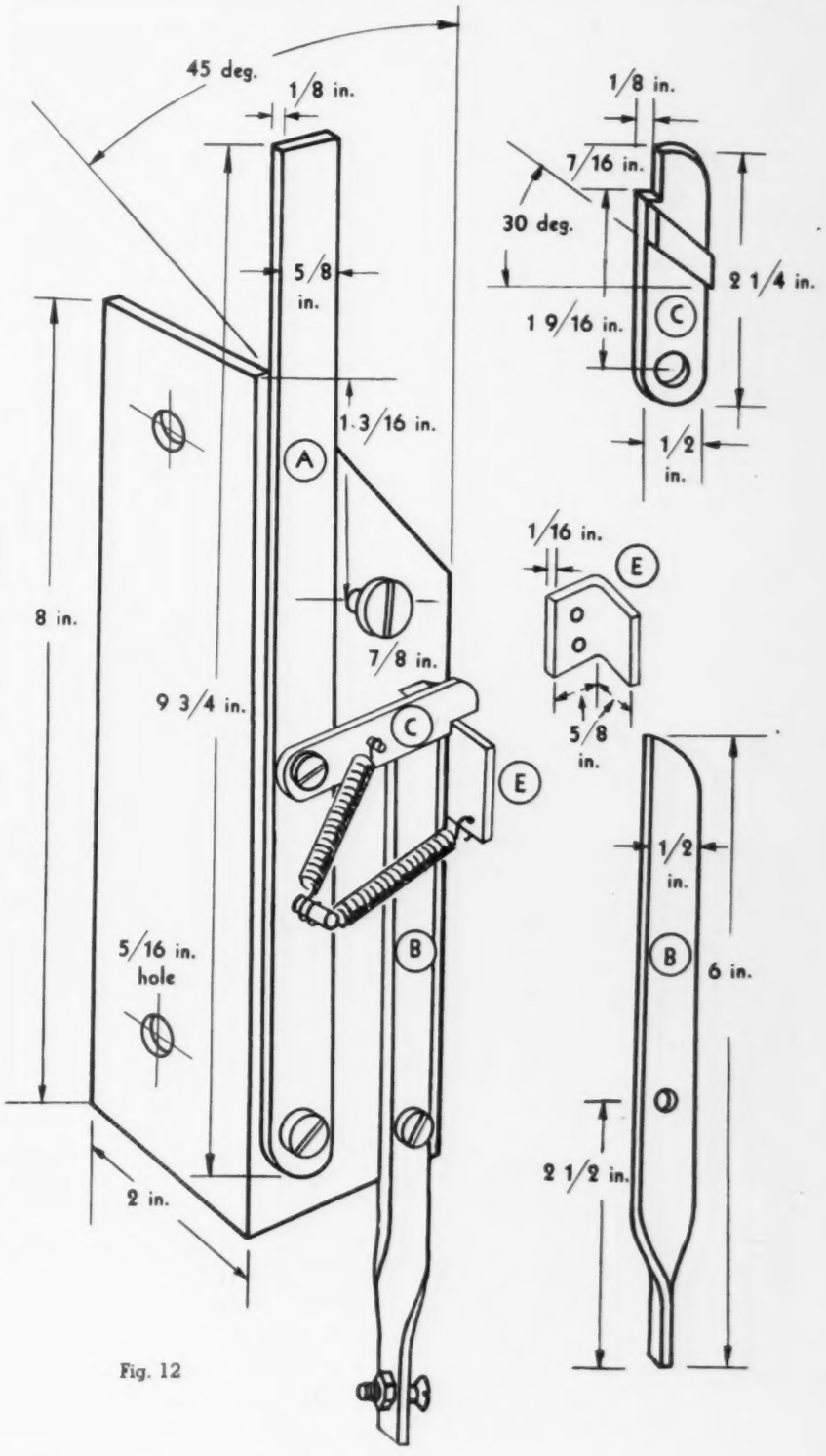


Fig. 12

is thrown to the left on a short line as the pump stop lever U-186 contacts the adjusting screw *D* (Fig. 12).

The action of the pump stop lever in pressing against adjusting screw *D* releases pawl *C* so that stop lever *A* moves to the left approx. 1 in., or sufficiently to cause the second elevator to be halted in its downstroke with the head approx. 3 in. above the top rails of the transfer channel.

While the diagram (Fig. 12) should be self-explanatory, additional explanation of the construction of the various parts will be made.

First, the body or frame of the device is cut from 2 in. by 2 in. angle iron to a length of 8 in. The top right section is cut off at an angle of 45 deg. as shown in diagram Fig. 12. Two holes each 5/16 in. diam. are drilled in the left hand section centered 9/16 in. from the left edge of the frame and 1 in. respectively from the top and bottom of the frame. These holes permit fastening the frame to the Intertype machine column with hex. hd. screws, 5/16 in. by 18 in. by 3/4 in. long.

To supplement the various parts illustrated in Fig. 12, the following descriptions are presented:

Lever *A*—This lever (diagram Fig. 12) is cut from 1/4 in. thick by 9/16 in. steel bar stock and is 9 3/4 in. long from lower end to heel of the 10 deg. angle at the top. The 1/4 in. hole for the pivot screw at the bottom of lever *A* is drilled centrally 9/16 in. from the bottom end of the lever and 9/16 in. from either side. Shoulder screw, part No. B-843 is used for the pivot bearing. The hole for screw which pivots pawl *C* is drilled centrally and 3 3/4 in. from the pivot of the lever *A*. Shoulder screw Part No. D-3326, is used for the pawl pivot.

Operating Lever *B* is cut from steel bar stock 1/8 in. thick, by 1/2 in. wide and 6 in. long. The upper end is rounded off as shown. The lower 1 1/2 in. section is twisted so that it will be at right angles to the lever body. A 1/2 in. hole drilled centrally of the width of the lever and 2 1/2 in. from the lower end is to receive the pivot screw which is 8x32 shoulder screw Part No. D-3326. An 8x32 screw Part No. D-156 with hex. nut is turned into hole drilled centrally of the lever width but 9/16 in. from the lower end of the operating lever.

Pawl *C* likewise is cut from 1/8 in. thick, by 1/2 in. steel stock and is 2 1/4 in. long. The notch is cut 1/8 in. deep in the pawl 7/16 in. from the rounded off end. The 1/4 in. hole in the pivot end is drilled centrally of the pawl width but 1 9/16 in. from the shoulder of the notch. A piece of steel 3/16 in. by 3/16 in. and wide enough to cover the pawl width is pinned to the pawl at an angle of 30 deg. as shown in side drawing.

The angle plate *E* against which the pawl works, consists of 1/16 in. steel stock. It measures 7/8 in. from top to bottom and the two right angle sections are each 5/8 in. wide. This angled tripping plate may be fastened to frame *A* with two 8x32 rnd. hd. screws. Measurement from lower edge of the plate *E* to lower end of the frame *A* is 3 1/8 in. The plate is hardened.

Ludlow Low Metal Alarm

At the Miami *Herald*, the Ludlow machines are somewhat isolated from the other line casting machines. Consequently, during the day, the operators hang pigs on the feeder as needed—except that the operators being engrossed in the work at hand they sometimes neglect this requirement. There is, too, the stereotype specter constantly stalking the linecomposing machines with respect to light slugs which won't stand up under molding pressures. Anyhow, Harry Greene figured out a device which would prevent the casting of light slugs on the Ludlow. He planned an alarm system so that when the metal was lowered between 1/16 in. and 1/8 in. below normal level, because of the pig on the feeder hook was exhausted, the device functions in two ways: (1) A red signal lamp is turned on, and (2) A warning bell sounds and continues to ring until the trouble is remedied. In Fig. 2 is shown the Micro Switch No. BZE-RQ2 mounted on top of the pot heating element junction box. Extending from the Micro Switch is an adjustable float which functions to illuminate the red lamp and sound the bell when the metal level in the pot needs raising to normal. The whole system is wired in parallel with the motor circuit so that the bell won't ring when the motor is turned off. The adaptable bell shown on the machine frame in Fig. 1, is manufactured by Edwards Electric Co. Its number is 340 and is rated 115 v., 60 cycle, 0.062 amps. The armored cable method of wiring is shown clearly in Fig. 1.

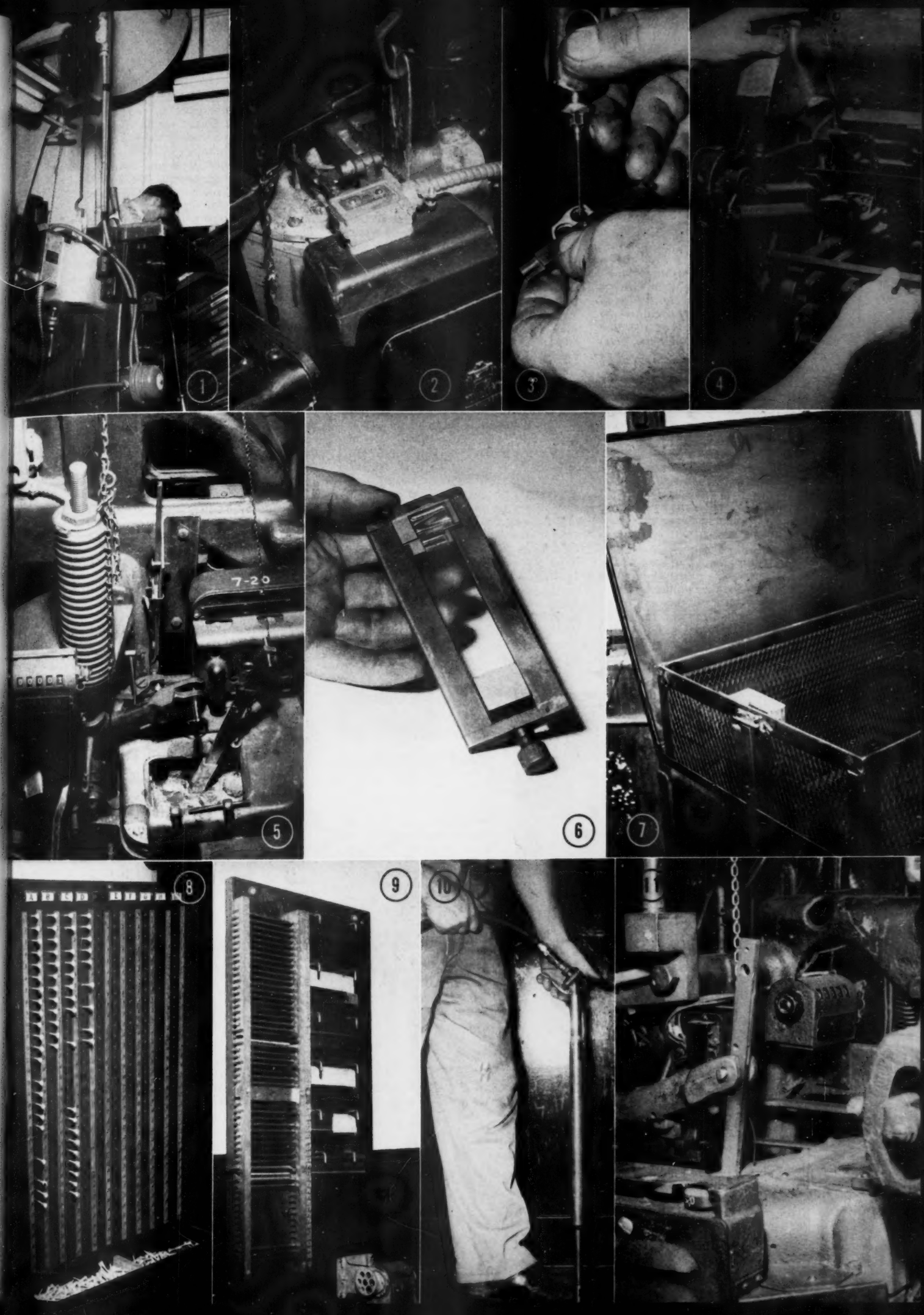
Edition Peg Board

An edition page indicating board (Fig. 8) is in use in the composing room of the Miami *Herald*. It is employed to give a running account of the number of pages (and which ones) delivered to the stereotype department for a given edition. The board is mounted on one of the building columns between the makeup and stereotype departments. Through the simple medium of golf tees the number of pages is indicated. As each page is sent to the stereotype department the corresponding peg or tee is removed from the board. The board itself measures 24 in. wide by 38 in. high. On the face of the board are mounted 11 vertical photoengraved zinc strips bearing page numbers. Each vertical row is designated with A, B, C, or D., etc., to correspond to sections of the paper. The numbers in each vertical row extend from 1 to 32. Thus, if an edition is to consist of 48 pages of four 12-page sections, 12 tees are placed in each of four rows. At the *Herald*, white tees for regular editions are used while the Clipper (South American) edition is indicated by yellow pegs. A two-compartment receptacle is provided at the bottom of the board for loose tees—one for white and one for yellow. When two editions "are in the works" white and yellow pegs are kept in separate rows. In this way, anyone wanting information about progress of the pages being sent in can obtain it without bothering to ask.

Modified Ludlow Stick

The Ludlow matrix composing sticks in use at the Miami *Herald* originally were made only for one size of matrix. In other words, there are two kinds of sticks—the stick for 1 1/4 in. matrices and the other for 7/8 in. matrices. The sticks (Fig. 6) have been modified to permit starting type line with a larger point size initial letter. The sticks have been modified to permit inserting a 1 1/4 in. matrix of any letter of 96 pt. in the stick to start the line. The slot which is cut in the left side of the stick is wide enough to accept the widest matrix in the font—usually the capital W. Then the rest of the line may be composed in any size smaller face so long as it is a 7/8 in. matrix. There is one

Five Ton Camera—One of the world's largest cameras, weighing almost five tons, has recently been completed by Robertson Photo-mechanix, Inc. The camera, built for Triangle Litho Print, New York, N. Y., measures 25 ft. in length, 9 ft. in height and 8 ft. in width and is constructed with an overhead design utilizing a bi-rail track with a one piece steel tube support, bringing the total weight of the track alone to over 3000 lbs. The rear case, lens case, copyboard frame and other components are constructed primarily of one piece castings. Film and glass plates from 4 in. by 5 in. up to 48 in. by 48 in. can be exposed through the 42 in. process lens and the vacuum film holder operates on a new type double zone selector. The glass covered rotating copyboard is equipped with blanket and counter balanced loading mechanism while adjusting devices on the copyboard keep the maximum pressure between blanket and glass.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precaution, however, which must be taken when composing such lines—it is necessary to put a thin space between the initial letter matrix and the first succeeding matrix as well as putting a 1¼ in. thin space between the 1¼ in. matrix and the head of the stick. This is done to prevent a metal squirt. The stick matrix ranges are as follows: 96-60 pt.; 72-48 pt.; 72-30 pt.; 72-30 pt.; 60-48 pt.; 60-36 pt. and 60-30 pt.

Redington Load Counter

In Fig. 11 is shown a Redington five numeral counter attached to a Comet Linotype. The counters are also attached to Intertypes but by a slightly different method. At each downstroke of the pot pump lever the counter registers. The counters, primarily, are applied to the linecasting machines to secure an idea of the load carried from hour to hour or day to day, although they can be used also to record operators' strings daily. In Fig. 11, the counter is mounted on a small bracket attached to the machine column above the metal pot with the counter's shaft extension projecting inside the machine column. An operating lever is attached to the shaft as shown. A steel eye is engaged with the hole in the end of the lever; next is suspended a steel coil spring (Part No. O). The coil spring in turn is connected by a steel eye and hook to the spring lever part of the pump lever itself. The coil spring, of course, eliminates metallic shock when the counter is operated by the downstroke of the pot pump plunger. The method for attaching the counter to an Intertype is shown in Fig. 5, except that a section of 2 in. angle iron by 3 in. is used. In this case, a steel rod is screwed into the pot pump lever. Connection of the rod to the plunger lever is accomplished with a wire link and coil spring similar to the spring used in the Linotype mounting.

Unlatching Releasing Latches

Some improvisements in composing rooms, while of a minor nature, are important. Such an item is the connecting up into one unit of the left and right-hand channel entrance releasing links (V-2545 and V-2546) on Models F and G Intertypes in the *Herald* plant. This was accomplished by fastening a steel bar (Fig. 4) with a screw to each of the releasing links. The bar was cut from steel stock ⅝ in. by ⅝ in. Thus, with one hand, the machinist may depress both links with one hand while releasing the channel entrance latch with the other hand as shown in Fig. 4. This arrangement permits quicker action in correcting the causes of the distributor stop and getting the machine going again.

Machine Parts Washer

It is advantageous to be able to clean assembled machine units rather than strip them down into many separate pieces during cleaning operations. In a newspaper composing room the time element is too important to do maintenance cleaning and oiling in any other way. In Fig. 7 is shown an inside top view of a parts cleaning cabinet. The cabinet is constructed of galvanized sheet steel with hinged lid. The cabinet is 3 ft. wide by 22 in. front to back, and is 36 in. total height from floor. The tank is of 50 gal. cleaning fluid capacity. Usually, Gunk is used. A TTS keyboard operating unit, keyboard cam yoke frames (assembled with cams), or other machine parts to be cleaned may be placed within the perforated container resting in the top of the cabinet. The container frame is constructed from sheet steel and diamond mesh grating which permits free flow of cleaning fluid through the machine parts being cleaned. An ordinary handle of the drawerpull type is fastened at inside edge of the tray for manual lifting purposes. The perforated container rests on cleats inside the cabinet extending from front to back and low enough to provide submersion in the cleaning fluid. A hinged support at either side of the container makes it possible to position the container in an elevated position. This permits drainage of fluid back into the tank and also provides a convenient way to either lay machine parts in or remove them from the tray. While the parts to be cleaned are submerged in the cleaning fluid, the fluid is agitated gently and continuously by compressed air. A ⅜ in. section of pipe extends horizontally across the bottom of the tank. The top tube is perforated with 1/16 in. holes, spaced 3 in. apart. The agitation tube is connected in the center with suitable connections likewise centrally located in the bottom of the tank. A ⅜ in. Jenkins valve is connected to an air hose. A gentle air pressure of approx. 10 lbs. is turned on to circulate the fluid during the cleaning period. Thus no brushes are used, the gentle circulation of the fluid floating off oil and dirt adhesions automatically. Cleaning time for a TTS keyboard operating unit is approx. 20 min. Keyboard cam yoke frame (with assembled cams and yokes) is approx. 15 min.

Going Up to Fifth Floor—A. Pomerantz & Co., a Philadelphia advertising printer, has been in business for over 60 years. Recently company executives decided to install a Harris single-color 22 in. by 34 in. press. When the press arrived, the problem was getting it to the fifth floor of the Pomerantz building, located on one of the city's busiest downtown streets. The problem was solved by hoisting the press through a window with a crane. A permit was necessary so that the rigging crew could stop traffic while the press was being elevated.

Keyboard Rubber Roll Applicator

A number of methods have been devised for applying new rolls to linecomposing machine keyboard rubber roll shafts. There is the wooden plug method. There is also the method of starting the roll on the shaft and pushing the free end into the large opening of a compressed air outlet valve. The latter method does not provide for pushing the last 2 or 3 in. of roll on the shaft. The device shown in Fig. 10 is perhaps the best means of all. It permits applying a roll to the shaft without physical effort. The main part of the device consists of a 1 3/64 in. brass tube, 15½ in. long which is sufficient to cover the full length of the new roll to be applied. At one end of the brass tube is inserted and soldered a length of brass rod which projects 4 in. from the end of the larger tube. The rod is bored out with a ⅜ in. diam. hole. To the end of the 4 in. section is fastened a Sherman Duster Valve which is attached to the compressed air hose. The Duster Valve carries a compressible handle. Now to apply a new roll, the roll is started on the shaft by hand for a short distance. The applicator tube is placed over the roll. The shaft is stood vertically on the floor and when the compressed air is turned on it expands the roll against the inside surface of the brass tube. Although 75 lb. air pressure is maintained in the *Herald* composing room, any reasonable air pressure

such as 45 lbs. will function efficiently to cause the roll to slide freely on the shaft.

Border Slide-Block Rack

The border and rule slides and blocks used at the *Herald* are kept in a convenient rack (Fig. 9) mounted on a building column near the ad alley machines. The rack system makes it possible to locate a slide quickly. The storage method also prevents damage to slides through careless handling. The base board consists of laminated lumber and measures 1 ft. wide by 3 ft. high. Two identical wooden strips have been notched at ¼ in. intervals. The strips were fastened with screws approx. 4¾ in. apart measured from outside edge to outside edge. Each slide has been given a number and the slide numbers are stamped on the outer face of the right hand strip. At the right side of the slide rack are mounted a half-dozen shelves upon which the slide blocks rest (one for each block). Two right-angle turndown screws hold the block securely in place on the shelf. If any of the slides or blocks are in use, it is easy to see which ones have been removed from the rack inasmuch as the surfaces immediately back of the slides and blocks are painted yellow for quick visibility. Capacity of the rack shown is 85 slides and six blocks.

Keyboard Cam Pivot Oiler

Linecomposing machine keyboard cams need meticulous attention at periodic intervals. On TTS operated keyboards it is highly important that the cams operate dependably. Up to the moment, at least, no way has been found to eliminate individual oiling of each cam pivot with the minimum amount of clock oil. A number of tube or squeeze oilers have been developed to replace the old toothpick method but they did not seem to release the proper amount of oil. At the *Herald*, the machinists for some time have used a bicycle oiler-hypodermic needle combination (Fig. 3). The hypo replacement needles may be purchased at any drug store. The oiler spout is cut off and the screw part of the needle base soldered to the screw part of the oiler spout to permit removal for filling the container with clock oil. The usual pointed end of the needle may be ground off if desired to permit exit of the oil directly from the end to the cam pivot.

Minneapolis Group Elects Officers

The 78th annual meeting of the board of directors of Graphic Arts Industry, Inc. was held recently in Minneapolis, Minn., approx. 200 members attending. S. Walter Sears, president of Mono-Trade Company, Minneapolis, Minn., presided as president of the organization. The program presented the following speakers: Treasurer's report by E. H. Olson, Japs-Olson Co., Minneapolis; *Relations With Labor Unions* by James E. Whiting, Whiting Press, Inc., Rochester, Minn. and a report on the industry's advertising by Milton Bolstein, Bolstein Company, Sioux City, Ia. Paul J. Ocken, vice president and general manager forecasted in his annual report that the industry should anticipate an 8% increase in volume in 1955 in the area served.

Following the report of the nominating committee, the following officers were elected for the coming year: Chairman of Board of Directors, H. Franklin Shedd; President, S. Walter Sears; Vice Presidents, Clarence Benson, Wm. L. Braisted, Robert W. Davies, Benj. E. Darby II, T. E. Flaherty, G. P. Freeland, L. E. Garity, R. E. Haugan, H. J. Hoffman, B. J. Nelson, H. V. Tofte; Vice President and General Manager, Paul J. Ocken; Treasurer, E. Herbert Olson; Executive Secretary and Assistant Treasurer, Grace H. Downing; Executive Committee, E. B. Berkowitz, W. O. Lund, sr., Henry P. Slane, Walter A. Strong, Birger Swenson, Karl H. Wagner, John J. Weston, sr.

Pres. Walter S. Sears opens 79th Annual Meeting of the Graphic Arts Industry, Inc. in Minneapolis.

Graphic Arts Industry, Inc. is a self-contained organization independent of any other trade group, and it serves all branches of Graphic Arts in the six states of Minnesota, Wisconsin, Illinois, Iowa, North Dakota, and South Dakota. It is a non-profit cooperatively owned group and provides management engineering service to all members. The Graphic Arts Technical school is operated by Graphic Arts Educational Foundation, Inc.

"—I'd feel better letting you beg off this afternoon to see your dentist if you weren't wearing your golf shoes!"

BOOKS

Photocomposition Book

A 40 page book of specimen lines of hand lettered and machine photocomposition has been prepared by Cecil H. Wrightson, Inc., 74 India St., Boston, Mass. Below the specimen line on each page are shown examples of the face in reverse, enlarged and reduced. Also scattered throughout the specimen pages are shown screened type lines. Several densities and patterns of these screens are available. While not particularly outstanding from a layout viewpoint, Wrightson, nevertheless, has utilized space on every page to present as complete a variety of sizes and styles of each face as possible. The book, which measures 8½ in. wide by 5⅜ in. deep is printed by offset.

A Dictionary of Electronic Terms

MORE than 3500 terms used in television, radio and industrial electronics are said to be included in *A Dictionary of Electronic Terms* published by the Allied Radio Corp. The revised edition, edited by Gordon R. Partridge of the University of Purdue, is provided as a reference source of words used in the rapidly expanding electronics field. Definitions cover mostly up-to-date techniques and equipment, but also range from words, no longer in general use but retained for historic reasons, to the new language of the electronics of nuclear physics and color

television. Electronics are now employed in a variety of ways in printing plant production and for this reason such a reference manual should be of value to mechanical and production executives in the Graphic Arts. Over 150 illustrations and diagrams of components, equipment and electronic circuits are included in the dictionary.

This new publication may be secured for 25c from Allied Radio Corp.

A Dictionary of Electronic Terms—Edited by Gordon R. Partridge. Book consists of 72 pages; measures 6 in. by 9 in.; paper cover. May be ordered direct from Allied Radio Corp., 100 N. Western Ave., Chicago 80, under Stock No. 37K756. Price, 25 cents per copy.

Rotary Numbering Heads

WM. A. FORCE & CO., INC., has published a manual on *Operating and Maintenance Procedures for Rotary Numbering Heads*. Comprehensive description of MH and DU rotary numbering heads, and cams and holding rings are provided in two sections of the manual. Other parts deal with the operation of machine in cam, disassembly and care of numbering machines, trouble shooting and data on getting the most from numbering machines. A service kit and spare parts to stock for these machines are suggested. Recommendations are also given for a repair control system. The manual is intended to provide form and ticket printers and other users of numbering heads with a reference source for answering questions on use, care and repair of such machines. The manual is well illustrated with photographs, diagrams and drawings. The Force company states that upwards of 500 printers were consulted in preparing the manual's contents. Copies are available upon request to Wm. A. Force & Co., Inc., 216 Nichols Ave., Brooklyn 8, N. Y.

A History of the Platen Jobber

RALPH GREEN, author of *The Iron Hand Press in America*, has now compiled from numerous sources an entertaining historical story on the background of the platen printing press. Green has published this information in a book he calls *A History of the Platen Jobber* in which he traces the development of these presses from the Ruggles Engine Press of 1840 up until the present day platen presses produced by American manufacturers.

Written in light form and including interesting sidelights on the inventors of the platen jobbers, the book is comprised of 38 pages of text with eight line drawings of the early presses. Green also provides in his book a list of the more than 112 different platen jobbers manufactured in the United States in the last 110 years, with their style designated, the years they were on the market and the name of the manufacturer. The edition has been limited to 496 copies, each individually numbered.

A History of the Platen Jobber—By Ralph Green. Book consists of 38 pages; measures 5½ in. by 8 in.; bound in paper covered boards with cloth spine. May be ordered direct from Philip Reed, Printer, 133 N. Jefferson St., Chicago 6. Price, $2.50 per copy postpaid.

Phototypography Section Organized

Frank M. Sherman, executive secretary of the Intl. Typographic Composition Assoc. has announced formation of a Phototypography Section. ITCA Pres. Harold L. McGirr has appointed W. E. Trevett of Cooper & Beatty, Ltd., Toronto (Ont.) Can., to serve as executive committee chairman of the new section. Joseph K. Costello, jr., Progressive Composition Co., Philadelphia, will serve as vice chairman. Other members of the five man executive committee are C. J. Caswell of Loheide-Caswell Co., Peoria, Ill.; Hubert J. Echele of Warwick Typographers, St. Louis, Mo., and William C. Braden, The Thos. P. Henry Co., Detroit.

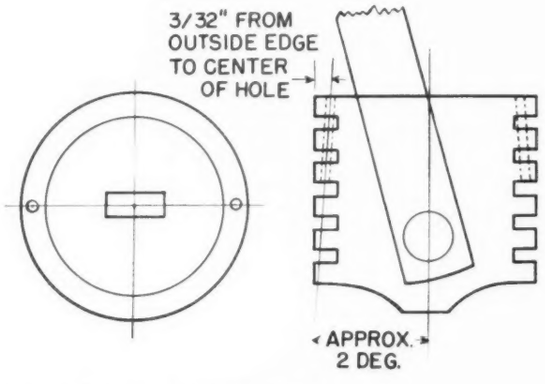
During the initial proceedings, 28 firms became identified with the Phototypography Section. Among these are nine plants operating Intertype Fotosetters. Each of the plants maintains camera equipment for production of still work, enlargements and reductions, controlled proportioning, modifications and the like.

The next meeting of the Phototypography Section will be held in Cincinnati, O., during the latter part of May in connection with the 1955 Mid-western ITCA Conference at the Sheraton-Gibson Hotel.

Objectives of the Phototypography Section will be to standardize trade customs and practices and establish standard terminology for use in the trade; to examine and evaluate new equipment, methods and processes, and to promote the use of phototypography. ITCA Executive Secy. Frank M. Sherman will serve as secretary of the new group.

Seeks Oldest Rosback Perforator

In celebration of its 50th year in business, officials of the F. P. Rosback Co., Benton Harbor, Mich., are attempting to locate the oldest Rosback Round Hole Rotary Perforator still in active use in a printing plant. To the owner of such a machine the company will present a new Rosback Pony Vari-Speed Rotary Perforator. Cash prizes of $25 each will also go to the operator of the old machine, as well as to the plant superintendent or bindery foreman (as designated by the owner). Entrants in the contest should contact their nearest authorized Rosback dealer for details. Contest closes midnight, April 30, 1955. The original machine being sought was designed in 1915.



Working diagram (not to scale) showing relation of two metal spray holes at 180 deg. to each other drilled through three top rings of linecomposing machine pot pump plunger to prevent balling of metal on plunger rod.

Preventing Balling of Metal on Pot Pump Plunger Rod – On many linecomposing machines, the molten metal adheres to and solidifies on the pot pump plunger rod or to the aluminum sleeve if the rod is supplied with one at the point where the rod reaches its downstroke when making the cast. After a time, a considerable ball of metal will have accumulated on the sleeve of the rod. This has been explained as indicating that the cold metal is being fed into the pot crucible faster than the heating equipment can bring the molten metal up to proper operating temperature. This balling of metal occurs even when properly cast slugs are being produced on the machine and where the metal is withdrawn at a fairly rapid rate from the crucible. In some cases, the aluminum sleeves become distorted in shape or are nicked from careless handling during plunger cleaning operations.

To prevent balling of the metal, R. S. Culler, chief composing machinist, The Washington (D. C.) *Post* drilled two holes in the plunger positioned 180 deg. in relation to each other from the top ring down to and including the third ring from the top. The holes were drilled with a No. 31 twist drill at an angle of approx. 2 deg. from vertical center of the plunger. The accompanying diagram indicates that the center of the holes to be drilled are prick punched to start 3/32 in. from the outside edge of the top of the plunger. This is a fussy operation since the drill must not be permitted to run outside the edge of the third plunger ring. At each downstroke of the plunger, molten metal is forced upwardly through the holes against the plunger rod or the sleeve, the two jets of which wash the rod to keep it free of collected metal.

Prefers Term: "Dry Offset"

Regarding the choice of names to be applied generally to Dry Offset (such as Relief Offset, Dry Relief Offset, Photoengraved Offset, etc.) I favor the term: Dry Offset. Relief Offset is wrong for two reasons: (1) Offset when thus employed refers to the finished product—printing; (2) Relief Offset is also wrong because some offset plates are in relief, although the relief is very slight.

The same objection applies to Dry Relief Offset. Again the finished product is not in relief.

The fourth alternative, Photoengraved Offset, is wrong because the finished product is not photoengraved.

The plate used in any of these processes is merely one of the supplies, the same as ink and paper. The term Dry Offset, it seems to me, is preferable from the standpoint of logic and reasoning. It is also short.

The only difference between dry offset and conventional offset is that in dry offset, water or any other wetting agent, is not employed. It is true offset since the impression is made from the plate to a blanket and offset from the latter to the paper, and the printing is done without the use of water.—Louis Flader, Consultant, American Photoengravers Association.

Fast Copper Etching With Powder Sought by PER, Inc.

Members attending the Annual Meeting of Photo-Engravers Research, Inc., held in St. Louis recently, were told that work on development of a powderless high-speed etching process for copper, sponsored at Battelle, was progressing favorably. They were also informed that (1) A new mounting material, Wellite, supplied by Wells Mfg. Co., had received satisfactory trade acceptance, and (2) A research graduate fellowship is to be established in a leading university.

During the past year, it was stated, six new companies were admitted to membership, making a total membership of 60 companies in the research organization.

New directors elected were: Homer L. Green, Wilson Engraving Co., Dallas, Tex.; Charles A. Powers, Powers Photo Engraving Co., New York, N. Y.; John J. Ries, American Photoengraving Co., Philadelphia, Pa. The new directors will serve with those still in office who are: George Hoffmann, Dixie Engraving Co., Savannah, Ga.; Dr. M. C. Rogers, R. R. Donnelley & Sons, Chicago; R. Seward, Bomac Engravers, Ltd., Toronto (Ont.) Canada; Thomas L. Cooper, Southern Photo Process Engraving Co., Atlanta, Ga.; E. Bartlett Brooks, Wayne Colorplate Co. of Ohio, Dayton, O.; Harry E. Collins, Collins, Miller & Hutchins, Inc., Chicago.

The new board of directors elected Powers as President; Ries, first vice president; Seward, second vice president; Hoffmann, secretary treasurer. Pres. Powers then appointed Dr. Rogers as chairman of the advisory committee and Cooper, chairman of the membership committee. J. Homer Winkler, Battelle Institute, was named executive director.

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Patents

For The GRAPHIC ARTS

Covering patents issued Oct. 5, 12, 19 and 26.

All new patents for the Graphic Arts are reported exclusively for *Printing Equipment Engineer* by Invention, Inc., an industrial patent research organization in Washington, D. C. Invention, Inc., presently has the only staff in the country that examines, in the U. S. Patent Office, the complete printed copy, drawing by drawing and page by page, every one of the several hundred new patents issued each week. *Printing Equipment Engineer* is the only trade publication in its field offering a report based on this complete coverage. For copies of the patents listed here specify the patent numbers and send 25c for each separate patent, or 10c for each trade mark or design patent (stamps not accepted) to the Commissioner of Patents, Washington, D. C.

Binding, Cutting, Perforating:

PLASTICIZED POLYVINYL CHLORIDE COMPOSITIONS

For use in coating fabrics employed in the bookbinding art. The bookbinding material to which drying-oil printing inks will firmly anchor claimed comprises a fabric base with an adherent coating of the following ingredients: polyvinyl chloride, tricresyl phosphate, liquid polyalpha methylstyrene, pigment, and polyvinyl acetate. This is superposed over a coating made up of polyvinyl chloride, tricresyl phosphate, liquid polyalpha methylstyrene, and pigment. Patent 2,690,981 by Henry Clarke Funk and Marquis Brentwood Reger, assigned to E. I. du Pont de Nemours & Co.

MACHINE FOR ASSEMBLING BOOK COMPONENTS

Such as the signatures and end sheets of books, provides for withdrawing the signatures and/or sheets from stacks held in suitable stacking mechanisms and for finally delivering them, after being pasted together, at a suitable receiving station. A feature of the withdrawing mechanism is that a vacuum cup is used to lift or loosen a signature from the stack after which a pair of grippers grasp the signature and positively move the complete unit to a work station. Patent 2,692,136 by Carl Schramm, assigned to The Smyth Mfg. Co.

BOOKBINDING MACHINE

Includes a rotatably mounted carrier equipped with grippers and adapted with rotation of the carrier to carry a book in a circular path with an edge of the book free of the grippers. Arrangements for applying adhesive to the edge and for applying a cover against adhesive on the edge are provided. A flexible platform is movably mounted on the machine and is movable radially of the carrier to a position bringing one side thereof into supporting contact with an applied cover. The platform is moved coincidentally with the book. A device is included for applying a rolling pressure to opposed sides of platform firmly to press the cover into adhesive on the edge. Patent 2,692,397 by Herbert G. Tellfors, assigned one-half to Clybourn Machine Corp., and one-half to Plastic Binding Corp.

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Composing Room Equipment:

PHOTOCOMPOSING MACHINE

Converted from a machine of the Linotype class and adapted to produce a film instead of a cast slug. The film has positive transparency, e.g., black characters on a clear background, which may be used directly for making deeply etched offset plates as well as gravure cylinders or plates. The film may also be contact-printed to produce negatives suitable for albumin offset plates and photoengravings. Patent 2,691,924 by James C. Plastaras, assigned to Mergenthaler Linotype Co.

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Platemaking:

STABILIZATION OF SYNTHETIC POLYMER SENSITIZED ZINC LITHOGRAPHIC PRINTING PLATES

A light-sensitive photographic element is used. The zinc plate so prepared by the process has a coating comprising a mixture of polyvinyl cinnamate containing about 60-100 mol per cent of recurring units having the formula:

$$-CH_2-\underset{\displaystyle 1}{CH}-O-CO-CH=CH-C_6H_5$$

and an amount of hydroquinone and an organic acid sufficient to prevent formation only in the dark of insoluble reaction product immediately adjacent the surface of the zinc plate. Patent 2,691,584 by James G. Smith and Louis M. Minsk, assigned to Eastman Kodak Co.

PRESCREENED POSTERIZING PHOTOGRAPHIC FILM

Made up of a support, which may be paper or metal if the material is to be used for printing by litho processes, and a uniformly thick photosensitive silver halide emulsion layer on the support with Clayden desensitization distributed throughout the layer in a uniform posterizing halftone pattern with at least three and not more than eight levels of different uniform sensitivities, varying in any one level less than one-third the difference between sensitivities of successive levels. Patent 2,691,585 by John A. C. Yule and Richard E. Maurer, assigned to Eastman Kodak Co.

PHOTOGRAPHIC LIGHT-SENSITIVE MATERIAL FOR MAKING HALFTONES

Prepared by exposing a photosensitive silver halide emulsion through a halftone screen to a high intensity short duration uniform flash of sufficient intensity and sufficiently short duration to produce a Clayden desensitization, the exposure at the emulsion being distributed due to the screen in an undulating halftone pattern. The invention may be applied to deep etch lithography and intaglio halftone gravure. Patent 2,691,586 by John A. C. Yule and Richard E. Maurer, assigned to Eastman Kodak Co.

METHODS OF PRODUCING HALFTONE PRINTING PLATES

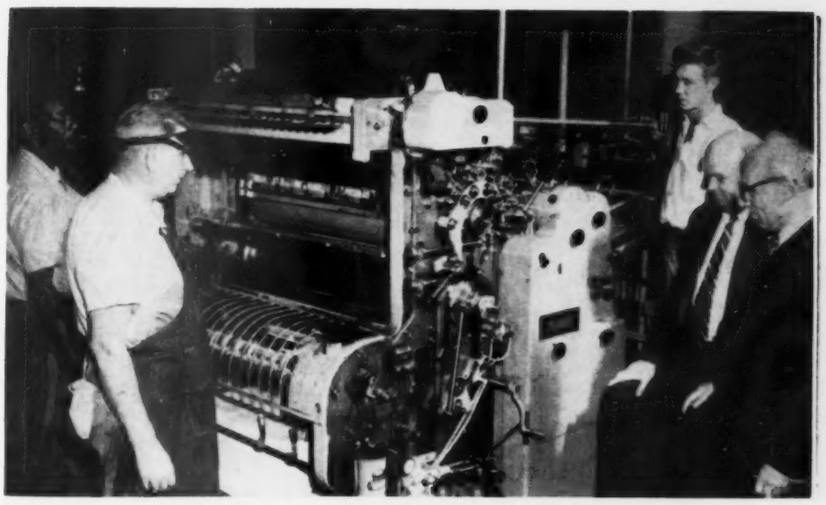
For newspaper work, it eliminates the steps of making a photographic print of a photographic film, rephotographing the photographic print through a line screen to produce a negative film of the picture in dots through the interstices of the screen, and the immersion of the screened positive plate, after development, in acid to etch away the unexposed portions of the plate face to produce the final printing plate. Thus, the original print, the screened negative and the acid etching are no longer required and a printing plate is produced directly from the image formed on the original negative in the press camera. The final printing plate consists of a sheet of synthetic resin or other flexible plastic. Patent 2,692,198 by Maurice D. Whitney, unassigned.

COLOR CORRECTING IN PHOTOMECHANICAL PROCESSES

Uses a set of positive transparencies which are applicable to planographic or relief printing. The transparencies are made up of a pair of registering color separation positives for each of a plurality of colors to be reproduced. Each pair of positives comprises a normal positive and a relatively thin and flat compensating positive, the color compensating positive having areas blocked out which correspond to areas of the normal positive in which the density correctly represents the color to be reproduced. Patent 2,692,825 by Frank A. Sportelli, assigned to Colour Separation Techniques, Inc.

LITHOGRAPHIC PLATES

Formed by coating a flexible metallic base with a solution containing polyvinylpyrrolidone and 4,4'-diazidostilbene-2, 2'-disulfonic acid sodium salt to form a light sensitive colloid layer which can be tanned by light, the light sensitive colloid layer is exposed to a light image, and the base material is removed from those portions of the colloid layer not struck by light. The plate is heated to a temperature of 200 to 400 degrees C. to transform the tanned image into a firmly adherent greasy ink receptive layer. Patent 2,692,826 by Wilhelm Neugebauer, August Rebenstock and Theo Scherer, assigned to Azoplate Corporation.



American Lithographing Co. of St. Louis recently completed the installation of a new Miehle No. 36 Offset Press. The press is part of an expansion program. Pictured are (right to left) Werner Fredericks, owner; Ralph Kleinschmidt, Miehle representative; Edward F. Guessfeld, jr., pressman assistant; Arthur E. Pallmer, foreman; Fred Witherspoon, porter.

PROCESS OF DEVELOPING PHOTOLITHOGRAPHIC PRINTING PLATES

Comprises exposing to active radiation the surface of a planographic printing plate having a paper base which is sensitized by a photosensitive composition formed by reacting an alkali metal sulfite with the zinc double salt of the formaldehyde condensation product of 4-diazo-1,1'-diphenylamine, moistening the exposed surface with oleic acid and then washing the treated surface with water. The aqueous lithographic-solution and lithographic printing-ink are then applied to the surface. Patent 2,692,827 by Frederic E. Brinnick, assigned to S. D. Warren Co.

METHOD FOR DEEP-ETCHING PRINTING PLATES

A first image is formed from a first coating of light-sensitive, etchant-resistant material on the face of a printing plate by placing a negative in contact with the coating, subjecting the plate to light and developing same. A second light-sensi-

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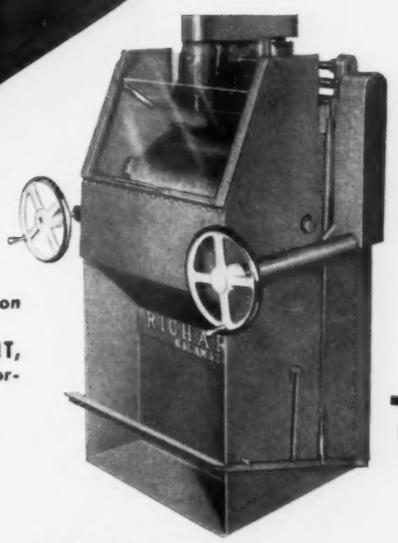

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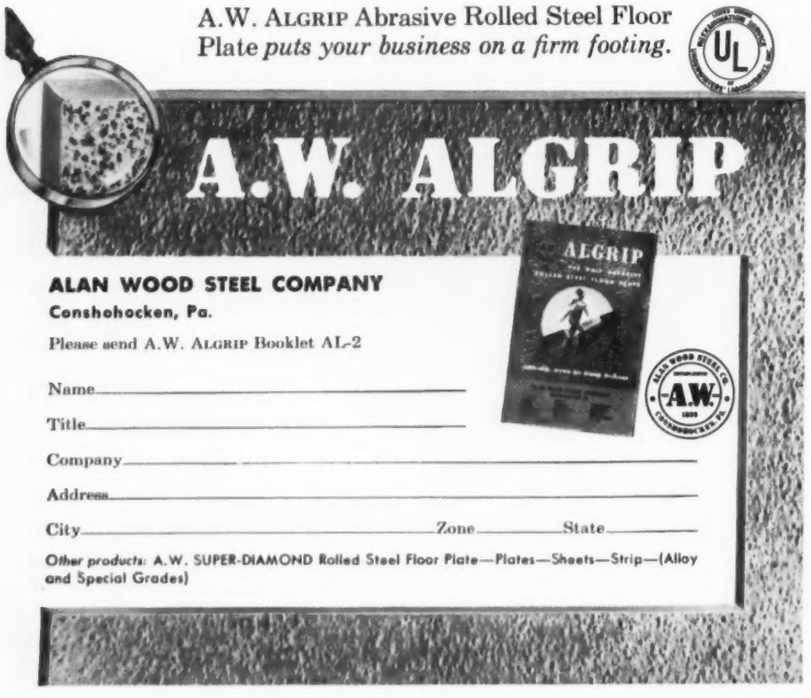

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PATENT SEARCHES

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tive, etchant-resistant coating is applied and negative is registered with first image. A parallel motion is imparted between plate and negative along a closed curve, while subjecting plate to light and the plate is developed to form a second image which overlies first image. The plate is etched, and the second image is removed with a solvent and a final etch is effected. Patent 2,692,828 by Knut Mauritz Iversen and Bjarne Eugen Blandhoel, Oslo, Norway.

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Printing Presses:

METHOD AND APPARATUS FOR PRINTING OR COATING

Comprises providing a perforate body and supplying a first fluid to one side of the body so that the fluid exudes to the other side of the body. A second fluid, compatible with the first fluid, is supplied to the other side of the body so that the fluids mingle on the other side. The material is brought adjacent the other side of the body. An electrostatic field of force is established which extends through the body and the material on which the deposit is to be formed. The mingled fluids are simultaneously transferred to the material by the field of force. Patent 2,691,343 by William C. Huebner, assigned to The Huebner Company.

INK ROLL CLEANING SCRAPER FOR PRINTING PRESSES

For removing ink from an intermediate inking roll of a press. It comprises a thin resiliently flexible scraping blade with a holder and a plurality of blade sections connected to the holder. Free edge portions project therefrom to the same rectilinear scraping edge in flexing engagement with the inking roll of the press. An auxiliary thin flexible lamination overlies the blade sections for flexing with same. The lamination is mounted in the holder and has a free edge portion extending toward but offset from the free edge portion of the scraping blade. Patent 2,691,344 by Joseph E. McMullen, assigned to The Journal Company.

COMBUSTION PRECIPITRONIC PROCESS AND APPARATUS

For producing the image upon image-receiving material by creating an electrostatic field of force extending through the material with the lines of force of the field arranged in accordance with the configuration of the image to be produced. Smoke is created by combustion of a smoke producing substance at a region remote from the field of force, and is conducted into the region of influence of the field of force adjacent that surface of the material on which the image is to be produced while the material is in the field. This causes the solid particles of the smoke to be deposited upon the image-receiving material by the lines of force. Patent 2,691,345 by William C. Huebner, assigned to The Huebner Company.

DOCTOR BLADE MECHANISM FOR INTAGLIO PRINTING PRESSES

Mounted between side frames of a unit of a multi-color intaglio printing press along one side of the printing cylinder and comprises a vertically adjustable slide on which is mounted a reciprocal platform. The platform carries a tiltable frame on which is adjustably mounted a holder carrying the doctor blade. The platform is reciprocated by the main drive shaft of the press through suitable driving connections. Patent 2,692,554 by Arthur P. Bamford, assigned to E. G. Stude Mfg. Co.

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Printing Ink:

PRINTING INK AND VARNISH

The varnish may be converted to printing inks by the addition of carbon black or other pigments. The varnish consists essentially of a liquid vehicle containing an aliphatic organic solvent of the class consisting of neutral water-miscible glycols, aliphatic ethers of glycols and aliphatic esters of glycols, which glycols, ethers and esters contain from 2 to 8 carbon atoms and only carbon, hydrogen and oxygen and in which lignin is soluble to the extent of at least 5% by weight, and mixtures of such solvents with up to 2 parts by weight of water; and from 10-40% by weight of lignin salt of a non-volatile nitrogenous base. Patent 2,690,973 by Andries Voet, assigned to J. M. Huber Corp.

Follow Craftsman Policies Mahoney Tells Presidents

The major objective of Craftsmanship is to keep plant executives fully informed on the best processing techniques and latest technical developments. The statement of policy was made by the President of the Intl. Assoc. of Printing House Craftsmen, Thomas P. Mahoney, vice president, Regensteiner Corporation, Chicago, in a letter to individual club presidents as he called upon them to plan educational programs to fit the Association's overall objectives.

According to President Mahoney, clubs have the responsibility of their members individually and the members' employers generally. Craftsmanship is dedicated to the spread of knowledge, he said, and moreover, the movement should encourage frank and mutually desirable exchange of ideas. It should act, he thought, as teacher and counsellor to printing plant supervisors and other industry leaders.

While urging local club presidents to plan meeting programs of an educational and training variety, President Mahoney revealed that the International Association intends to help along this line through what was described as "service to industry" programs. Intl. First Vice Pres. A. R. Tommasini, superintendent, University of California Press, Berkeley, Calif., will direct this activity.

Mahoney also called for the extension of technical workshop programs. His administration will foster workshop programs on Materials Handling, Statistical Quality Control, Printer-Engraver Cooperation, Foremanship, Web-Rotary Printing, Production Economies, Work Simplification, Pressmanship, New Plates and Copy Preparation Techniques.

Close cooperation between the Intl. Association of Printing House Craftsmen and the Research and Engineering Council, Printing Industry of America, Graphic Arts Educational Council and National Safety Council were cited by Mahoney as examples of Craftsmanship's contribution to tradewide groups.

He concluded the letter to club presidents by emphasizing that his administration did not intend to interfere with individual club programming. But, he added, the impact of serious educational undertakings planned with all clubs participating ". . . couldn't help but benefit everyone concerned with printing."

ASTM Sub-Committee Reports Real Progress

Printing Ink Sub-committee XVI, of the Committee D-1, American Society for Testing Materials, met in Chicago during the recent sessions of the Society. The Sub-committee is under the chairmanship of M. C. Rogers, Research Director, R. R. Donnelley & Sons Co., Chicago. The work of the Sub-committee, now in its fourth year, is directed toward the study and adoption of recognized standard test methods applicable to printing inks and their components. It is also concerned with the establishment of standards as they relate to printing inks and the raw materials from which they are made.

Since its inception, the Sub-committee has developed a tentative standard method for Fineness of Grind for printing inks. At a recent meeting it adopted tentatively a standard method for Specific Gravity of Printing Inks. The latter work was under the direction of R. S. Shephard, Howard Flint Ink Co., Detroit. An extensive report on the standardization of the Reed Inkometer was presented by Dr. Robert Reed, Lithographic Technical Foundation.

Seven groups within the Sub-committee are studying press methods relating to Rub Proofness, Rheological Properties of Printing Inks, Drying Time, Printability, Tinting Strength and the establishment of uniform standards for lithographic varnishes.

Membership in the Sub-committee is open to all persons working with printing inks, their technology and application. Those who desire to work with the Committee or have test method problems of standards needing studying of adoption by the ASTM should submit them to the Sub-committee through its Chairman, M. C. Rogers, or to the Secretary, Dr. A. C. Zettlemoyer, Dept. of Chemistry, Lehigh University, Bethlehem, Pennsylvania.

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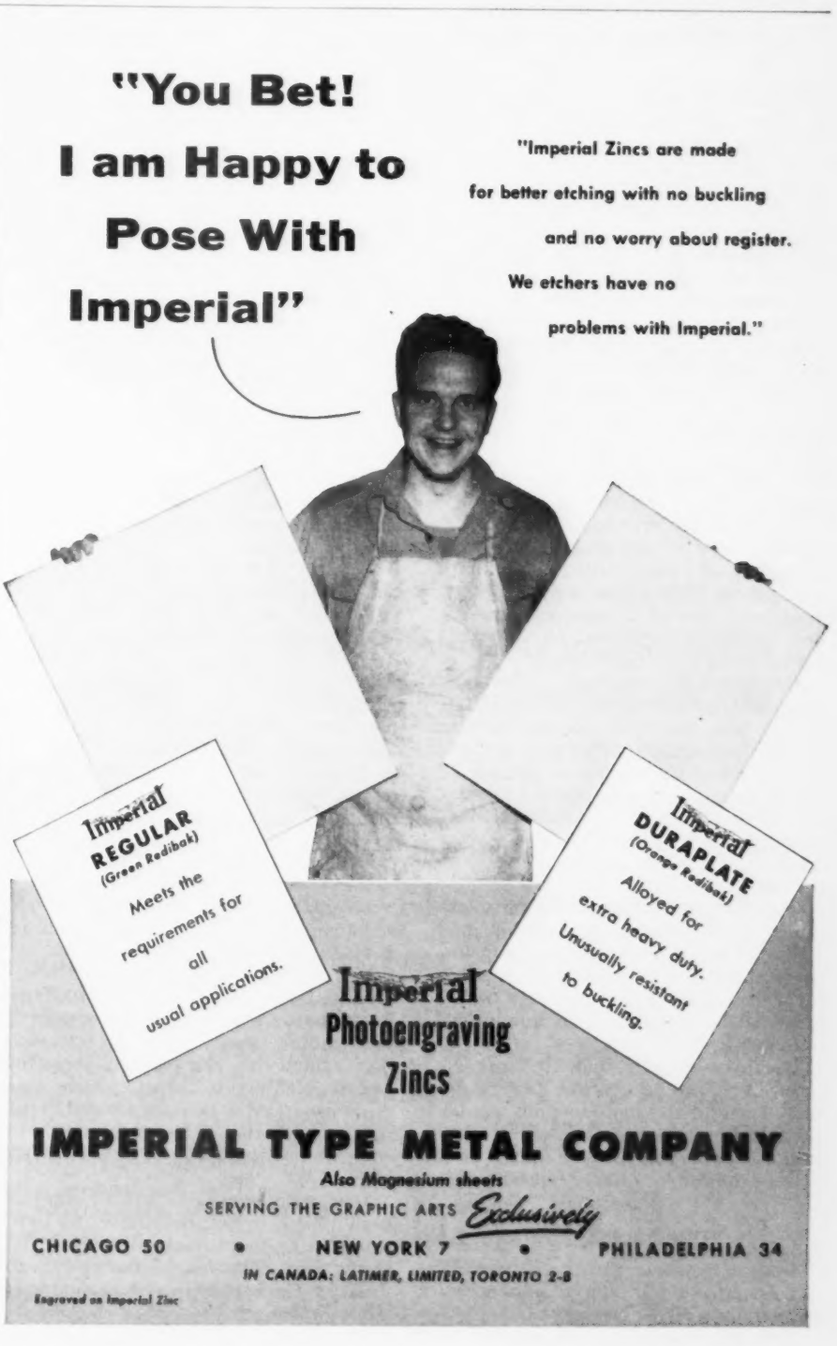
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XXIV—COLOR STRIPPING for ALBUMIN PROCESS

COLOR stripping is a highly specialized operation. In procedure, it is quite similar to the ancient art of hand transferring. Accuracy and precision are of prime importance in color stripping. The slightest deviation in register or in dimensional stability will spell disaster.

Color stripping differs from black and white stripping in this, that multiple negatives or positives of a single or complex work of art are employed for reproduction purposes.

Whether it be for three, four or more colors a similar number of negatives or positives must be provided. Each negative or positive representing the one specific color component of the printed reproduction.

Negatives, in general, are used for reproductions of color art by direct photographic color separation for the albumin process. These having previously been color corrected, reduced, intensified, stained and opaqued, by the artist, dot etcher or color correctionist.

Stripping color negatives, however, is extremely difficult because of the overall density and opacity of the several elements. Registration difficulties are increased when the opacity or density of one or more elements cancel out the detail of the image on another element when the respective elements of the assembly are superimposed, one over the other.

Company and production policy has much to do with the manner or procedure to be pursued in the stripping and usage of direct color separation negatives for platemaking. This policy may be determined by economical or quality requirements.

It can be assumed that the more extensive the procedures, the better and more accurate the reproductions will be, because greater precision is possible in all instances where register of image is a prime requisite for quality reproduction.

Stripping Negatives

In most instances, direct color separation negatives are produced on panchromatic films with occasionally one separation made on an orthochromatic film.

When working with photographic films, dimensional stability cannot always be assured. Hence the importance for image registration rather than reliance upon register marks. These latter serve for positioning of the image and not for superimposition.

Stripping Procedure (Layout)

Our layout is made on a sheet of golden rod or cardinal red masking paper which should be of the same size as that of the printing plate. This is done on a flat topped light table.

Such a table is equipped with both accurately spaced measuring devices and movable straight edges for horizontal and vertical ruling.

With the layout sheet fastened into its proper position, the first line drawn is that indicating the gripper edge of the printed sheet. The edge of the layout sheet will coincide with the edge of the printing plate.

Next, we find the center of the sheet along the gripper line and draw the perpendicular center line. From the vertical center and gripper lines all other measurements and lines are taken and ruled. These are the lines, both horizontal and vertical, which establish the work areas, margins, borders, headings, type copy locations and the exact location for the placement of the color illustration. This layout, when completed, is called the key or master layout sheet.

Analysis

Before proceeding further with our stripping operations, time is taken to analyze our job. We know that a separate layout sheet must be made for each individual color making up the illustration. By analysis, we may find that portions of the heading caption or even body type may extend into the pictorial area. Or perhaps another bit of illustrative material may need to be incorporated in the major illustration. This, too, may be in color, but originating in separate art work.

It may be found also that a column of body type is to be printed over an indicated background panel of halftone tint in the same color ink. Instances such as these may indicate the need for double or triple printing and masking to produce one printing plate. Each instance may require a separate layout sheet. It is evident, therefore, that layouts for color flats alone may not suffice and that more layout sheets are required.

Transferring

To protect the cover glass of the stripper's light table, against cuts and scratches a cutting or mounting glass should be provided. This piece of glass must be larger than the sheets to be laid out.

Having determined the number of layout sheets required for the job, these sheets including the master or key sheet are securely fastened to the cutting or mounting glass. It is important that the pile be placed exactly in perfect alignment along the gripper and side guide edges. It is important, too, that these two sides be perfectly squared.

Since the layout sheets are presumably the same size as the printing plate, the edge of the sheet along the gripper edge should coincide with the gripper edge of the plate, which must be straight and perfectly squared to the side guide edge. Any deviation at these points can only result in misregister on the printed sheet in addition to lost time on the press and possible makeovers, all of which is costly in time, labor and material.

Remembering that register is of prime importance, we can now proceed to cut the register marks. These, incidentally, must be located outside the work area, yet close enough to be printed on the impression sheets.

Cutting the Marks

Here skill, a steady hand and keen edged cutting tools are most essential, in addition to a perfectly straight edged metal cutting guide. Thin edged razor blades or stripping knives are the cutting instruments. Heavy or extremely wedge shaped cutting edges must be avoided.

All cutting must be perfectly perpendicular through the entire pile of layout paper. Each cut must be cleanly executed. Tilting the cutting edge even to the slightest degree will instantly throw register out of kilter and ruin the job.

For our first cut we will place the metal straight edge along the vertical center of the master layout. At the gripper edge we will cut through the pile for about ½ in., followed by an angle cut on one side so as to create a notch. This notch is to coincide with the center of the printing plate along the gripper edge and is its only function.

With the straight edge still in position, a vertical mark is cut through the pile at the back side of the layout. Vertical marks are also cut across the horizontal center line at each side of the layout.

The metal straight edge is now laid along the horizontal center line and the horizontal marks are cut through the pile at each side of the layout, crossing the vertical marks. A horizontal cut is taken across the vertical center mark at the back side of the layout.

The cross cut register marks serve for the three point system of sheet registration in all subsequent operations and procedures. The notched cut at the sheet's

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edge identifies the gripper and the front side of all layout sheets.

To expedite accurate register of the layout sheets, the extreme ends of the horizontal and vertical marks are frequently cut or punched with ¼ in. holes or openings.

Preparing Master Layout Sheet

To be more effective for purposes of register more cutting must be done which may or may not weaken the sheet for extensive handling. In order to add strength and support to the master layout sheet, some operators fasten the paper securely to a sheet of clear acetate film, with tabs of Scotch tape. Before doing any cutting, a smaller piece of acetate film is inserted between the paper and its film support. This affords protection against accidentally cutting through the supporting film when cutting windows in the paper layout sheet.

In some instances, where no single color separation negative contains sufficient detail for registration purposes, an extra detail negative is provided. This negative is used "as is", without any unnecessary retouching or opaqueing.

The extra negative is positioned on the layout sheet and is fastened on one side only with tabs of self adhesive tape. Like a flap, the film is folded over so that the window may be cut in the layout sheet. The window is cut to include the illustration image and its individual register marks.

After removing the cut-away paper, the negative is again repositioned and is securely taped to the master layout. We now cut as many primary windows as possible to correspond to elements comprising the entire assembly. With clear transparent tape, the layout sheet is further fastened on the edges of the cutout windows to the acetate film support.

Secondary elemental areas may be keyed by cutting triangular openings on lines at specific corners or other key points in the layout. With all windows cut and the detail negative firmly positioned, the name of the assembly is now changed from the *master layout* to the *master flat*.

Assembling the Flat

Assembling the flat for platemaking resolves itself into a matter of superimposing for each individual color to be printed, and for each individual double printing flat or mask.

With tabs of masking tape, the master flat is fastened securely to the cover glass of the light table with the paper side up. A prepared layout sheet is now placed in exact register with the master flat and fastened securely with tabs of self adhesive tape.

For all window cutting operations, a piece of clear acetate film is sandwiched between the two paper sheets.

A window is now cut over the detail negative including its register marks as well as all openings for lettering or other matter to be printed in the same color is to be positioned.

After all windows and openings have been cut, the sandwiched acetate film is removed. We now proceed with our assembly.

The desired color corrected negative is now placed in exact register with the detail negative in the master flat. All register marks must be in perfect alignment, with special attention given to the illustrative detail in the superimposed negatives. The slightest variation or deviation of register at this point will result in a gross mis-register in the printed impression.

It is sometimes advisable to underlay the separation negative with a piece of transparent tracing paper. This tends to gray the master negative and to render the separation negative blacker, thus affording greater accuracy in registration of the two elements.

When accurate register is attained, the film is secured to the layout sheet at each corner of the film with tabs of self adhesive tape. This procedure applies to all elements of the flat.

All subsequent color flats are assembled in the same manner, following the same procedures.

Double Prints

Need for a double print may be due to several reasons, *i.e.*, indicated inserts, type overprinting illustrations or tint panels of the same color, insufficient room for mounting on the flat assembly, etc.

Following the same procedures of assembly, the double print flat contains only those elements for which it is pre-

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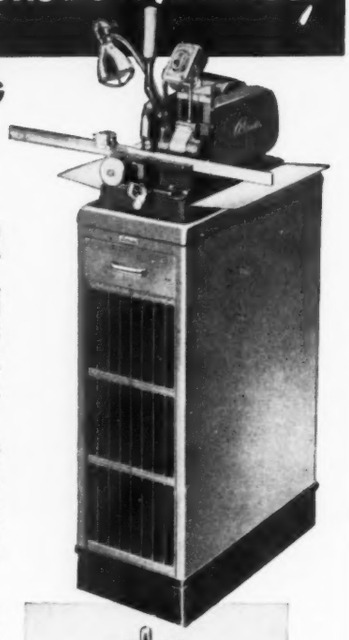

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pared. The sheet register cross marks, however, have their opposite corners cut away. The result is called a butterfly mark. These marks tend to simplify registration for the plate maker.

Final Preparation

After each flat is completely assembled, it is flopped and necessary masking and fastening is done on the under side of the assembly. With tabs of red self adhesive tape, all of the assembled elements are securely fastened together. All unwanted marks and defects are masked out with red tape or pieces of masking paper, and all of the negatives are spotted with opaque wherever pin holes or other defects are apparent.

Each flat is marked plainly to identify job name and number, the color and a large *DP* for a double print or an *M* for a special mask. All related color, double print and masking flats must bear similar marks of identification so that errors in printing may be avoided.

Proving

Proving the flats is an important operation. This is accomplished by either a brown, black or blue paper print made by successive exposures of the individual flats. A black, brown or blue print proof is a precautionary means by which the accuracy of registration and platemaking quality of the flats can be firmly determined.

Proof prints also serve for proofreading of the copy and as a final check for the entire layout. Any errors in placement or position of the various elements can be quickly detected, permitting corrections to be made before production of the printing plates is begun.

Such proof prints should never be submitted to the customer except for reference purposes only. Because the overall appearance of a brown, black or blue print proof is altered by reason of the multiple exposures, the proof should never be considered as being a facsimile reproduction. Otherwise, disappointments, dissensions, arguments and possible loss of the job or customer may result.

By following the procedures as outlined herein, excellent color reproduction via the albumin process should be assured.

(To Be Continued)

Conference Dates

(With Organization Names and Principal Officers)

American Photoengravers Assoc. — 1955 Conv., Waldorf-Astoria Hotel, New York, N. Y., Oct. 10-12. Exec. Secy. Frank J. Schreiber, 166 W. Van Buren St., Rm. 430-A, Chicago 4, Ill.

ANPA Mechanical Conf. — 1955 Conf., Edgewater Beach Hotel, Chicago, June 6, 7, 8. Mgr., ANPA Mechanical Dept., Richard E. Lewis, 370 Lexington Ave., New York 17, N. Y.

Book Manufacturers' Institute—1955 Conf., The Greenbrier, White Sulphur Springs, W. Va., Oct. 13-15. Secy. Miss A. G. Watson, 25 W. 43rd St., New York 36, N. Y.

Fifth District Craftsmen's Conf. — 1955 Conf., Netherland-Plaza Hotel, Cincinnati, Aug. 6. Secy.-Treas. Dave Walker, Adm. Asst., Graphic Arts Assoc. of Michigan, 320 W. Lafayette St., Detroit 26.

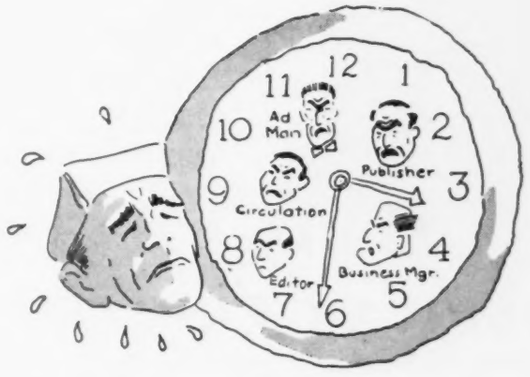
Graphic Arts Trade Assoc. Executives — Secy. Arthur L. Johnson, Graphic Arts Assoc. of Milwaukee, 704 W. Wisconsin Ave., Milwaukee 3, Wisc.

Gravure Technical Assoc.—1955 Annual Meeting, Drake Hotel, Chicago, Ill., Feb. 2, 3, 4. Secy. Edward S. St. John, 30 Rockefeller Plaza, New York 20, N. Y.

Great Lakes Newspaper Mechanical Conf. — 1955 Conf., Sheraton-Cadillac Hotel, Detroit, Mich., Jan. 16, 17, 18. Secy.-Treas. Don Clark, Stereotype Supt., Grand Rapids (Mich.) *Press.*

Illinois Newspaper Mechanical Conf. — 1955 Conf., Leland Hotel, Aurora, Ill., Sept. 24, 25. Secy.-Treas. Wilbur Augsperger, Peoria *Journal-Star, Inc.*, 119 So. Madison St., Peoria 2, Ill.

Intl. Assoc. Electrotypers & Stereotypers —1955 Conf., Shoreham Hotel, Washington, D. C., Oct. 19-22. Exec. Secy. A. P. Schloegel, 701 Leader Bldg., Cleveland 14.



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Intl. Assoc. of Printing House Craftsmen—1955 Conv., Netherland-Plaza Hotel, Cincinnati, O., Aug. 7-10. Exec. Secy. Pearl E. Oldt, Rm. 806, Transportation Bldg., 307 E. Fourth St., Cincinnati 2, O.

Intl. Graphic Arts Education Assoc.—1955 Conv., Carnegie Institute of Technology, Pittsburgh, Pa., the first week in July. Exec. Secy. Samuel M. Burt, 719 Fifteenth St. N. W., Washington 5, D. C.

Intl. Printers Supply Salesmen's Guild—1955 Conv., Netherland-Plaza Hotel, Cincinnati, O., Aug. 7-10. Secy. Myron F. Lewis, 608 S. Dearborn St., Chicago 5.

Intl. Typographic Composition Assoc. — 1955 Conf., Hotel Ambassador, Los Angeles, March 25, 26. Secy. and Exec. Dir. Frank M. Sherman, 1015 Chestnut St., Philadelphia 7.

Iowa Daily Newspaper Mechanical Conf.—1955 Conv., Hotel Martin, Sioux City, Ia., May 7-9. Sec.-Treas. Paul F. Kamler, Mechanical Supt., Clinton (Ia.) *Herald*.

Kansas-Missouri Newspaper Mechanical Conf. — 1955 Conv., Town House Hotel, Kansas City, Kan., Sept. 10, 11. Kansas Secy.-Treas. Larry Miller, Kansas Press Assoc., 701 Jackson St., Topeka, Kan. Missouri Secy.-Treas. William A. Bray, Missouri Press Assoc., 220 Walter Williams Hall, Columbia, Mo.

Lithographers National Assoc. — 1955 Conv., Lake Placid Club, Lake Placid, N. Y., June 20-24. Exec. Dir. W. Floyd Maxwell, 420 Lexington Ave., New York 17, N. Y.

Mid-Atlantic Mechanical Conf. — 1955 Conf., Ambassador Hotel, Atlantic City, N. J., March 17, 18, 19. Conf. Dir. Theodore A. Serrill, PNPA General Mgr., 304 Telegraph Bldg., Harrisburg, Pa.

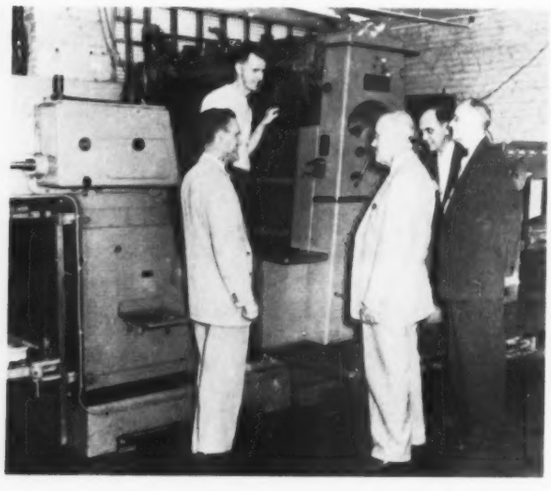
National Assoc. of Litho Clubs — 1955 Conv., Hotel Schroeder, Milwaukee, Wis., May 5-7. Exec. Secy. Frank Mortimer, U.S. Government Printing Office, Washington 25, D. C.

National Assoc. of Photo-Lithographers—1955 Conf., Hotel Statler, Cleveland, O., Sept. 21-24. Walter S. Soderstrom, 317 W. 45th St., New York 36, N. Y.

National Printing Equipment Assoc., Inc. Secy. James E. Bennet, 140 Nassau St., New York 38, N. Y.

National Safety Council Printing and Publishing Section—1955 Meeting, Conrad Hilton Hotel, Chicago, Oct. 17-21. Staff Rep. James D. Saul, National Safety Council, 425 N. Michigan Ave., Chicago 11.

New England Mechanical Conf. — 1955 Conf., Hotel Statler, Boston, Mass., Oct. 15, 16. Secy.-Treas. Walter C. Crighton, Comp. Room Supt., New London (Conn.) *Day*.



Executives Discuss New Press—The Nazarene Publishing House, Kansas City, Mo., recently installed a Miehle No. 49 Single Color Offset Press. Gathered around the press, from left to right, are: Arch Edwards, production manager; Curtis Simpson, pressman, both of Nazarene; Dr. Haldor Lillenas, Lillenas Publishing Co.; Bud Lunn, assistant manager; and Dr. M. Lunn, manager, both of Nazarene.

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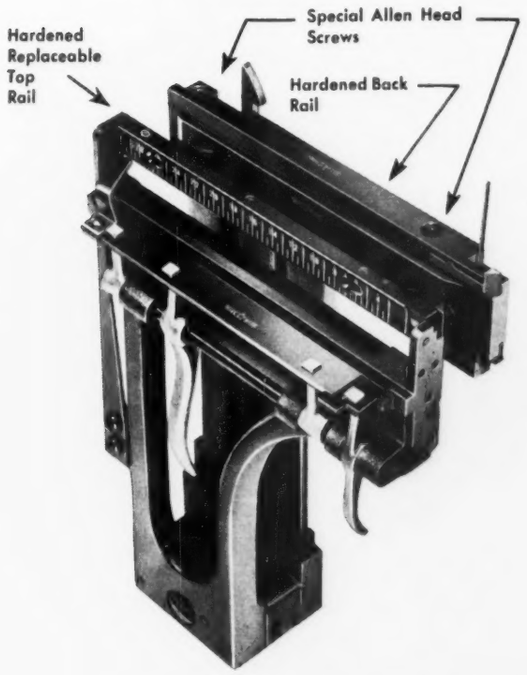

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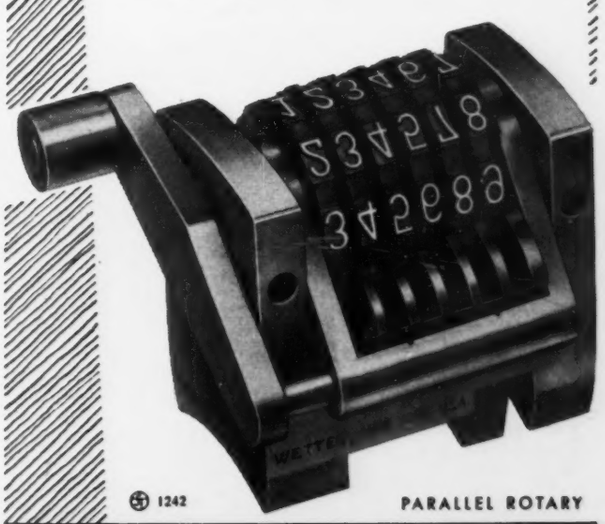

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WEST COAST OFFICE — 318 DeYoung Building, San Francisco, California — ED SPARKS

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Eliminate:
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- Overheating of journals
- Daily lubrication
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Reduce:
- Friction
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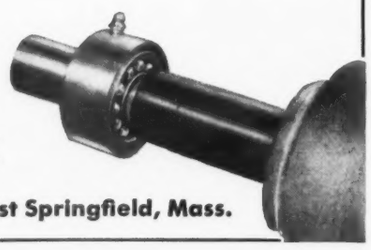
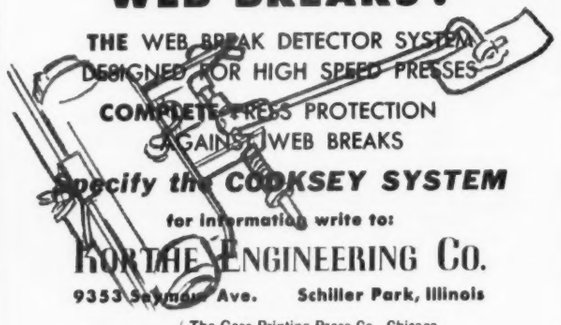


ALICO, Inc. West Springfield, Mass.

WEB BREAKS?



THE WEB BREAK DETECTOR SYSTEM DESIGNED FOR HIGH SPEED PRESSES

COMPLETE PRESS PROTECTION AGAINST WEB BREAKS

Specify the **COOKSEY SYSTEM**

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9353 Seymour Ave. Schiller Park, Illinois

Sales Agents { The Goss Printing Press Co., Chicago; R. Hoe & Co., New York; Wood Newspaper Machinery Co., New York

New York State Capital District Mechanical Conf.—1955 Conf., Hotel Ten Eyck, Albany, N. Y., Jan. 29, 30. Secy. Walter E. Lewis, Asst. Supt., Schenectady *Union-Star.*

Northwest Mechanical Conf.—1955 Conv., Hotel St. Paul, St. Paul, Minn., Feb. 19-21. Secy. Ralph N. Carson, Linecasting Instructor, Dunwoody Industrial Institute, 818 Wayzata Blvd., Minneapolis.

Pacific Mechanical Conf. — 1955 Conv., Sheraton-Palace Hotel, San Francisco, Calif., Sept. 9-11. Secy. Edward Maggi, Phillips and Van Orden, 870 Brannan St., San Francisco 3.

Packaging Institute Assoc.—1955 Forum, Hotel Statler, New York, N. Y., Nov. 1, 2. Exec. Dir. Laurence V. Burton, 342 Madison Ave., New York 17, N. Y.

Colorado Craftsmen — The Southern Colorado Club of Printing House Craftsmen, chartered officially at a presentation ceremony at Colorado Springs recently, became the 99th Club affiliated with The Int'l Assoc. of Printing House Craftsmen. The new club is headed by George J. Kubricht. Other officers are: Fred B. Goodhart, vice president; George M. LeCrone, secretary, and Lillian Graham, treasurer. With James Munson the officers form the Club's Board of Directors. The audience of trades people included Ferd Voiland, jr., third vice president of The Int'l Club of Printing House Craftsmen, and State Printer of Kansas. Voiland officially welcomed the new club into the International and presented Pres. Kubricht with the charter. Pictured are (left to right): Vice Pres. Fred B. Goodhart; Pres. George J. Kubricht; Int'l Craftsmen third Vice Pres. Ferd Voiland, jr.; Treas. Lillian Graham; Board Member Willard E. Riley, and Secy. George LeCrone.

Printing Industry of America—1955 Conf., Hotel Chalfonte-Haddon Hall, Atlantic City, N. J., Oct. 51-20. Gen. Mgr. James R. Brackett, 719 Fifteenth St., N. W., Washington 5, D. C.

Research and Engineering Council of the Graphic Arts Industry, Inc.—1955 Meeting, Parker House, Boston, Mass., May 11, 12, 13. Managing Dir. Robert E. Rossell, 719 Fifteenth St., N. W., Washington 5, D. C.

Rocky Mountain Mechanical Conf.—Secy. Mark McCoy, Union Printing Co., 2155 Lawrence St., Denver, Colo.

Screen Process Printing Assoc.—1955 Conv., Ambassador Hotel, Atlantic City, N. J., Sept. 10-13. Secy. Robert H. Blundred, 549 W. Randolph St., Chicago 6.

SNPA (Eastern Div.) Mechanical Conf.—1955 Conf., tentatively set for Hotel Roanoke, Roanoke, Va., Aug. 22, 23. Secy. Ray B. Crow, Southern Newspaper Publishers Assoc., P. O. Box 1569, Chattanooga 1, Tenn.

SNPA (Western Div.) Mechanical Conf.—1955 Conf., Adolphus Hotel, Dallas, Tex., March 6-8. Conf. Chairman Roscoe Ammonette, Marshall (Tex.) *News-Messenger.* Secy., Walter Johnson, jr., P. O. Box 1569, Chattanooga 1, Tenn.

Southern Graphic Arts Assoc.—1955 Conv., Hot Springs, Ark., May 26, 27. Secy. Charles E. Kennedy, 1514 South St., Nashville, Tenn.

Technical Assoc. of the Graphic Arts—1955 Conv., Somerset Hotel, Boston, Mass., May 9, 10, 11. Secy.-Treas. George S. Hammer, 8 Cherry St., Marblehead, Mass.

Reports of Equipment Sales and Installations

Mergenthaler Installations

ORDERS TWELVE LINOTYPES—The Detroit *News* has ordered 12 modern Linotypes, it was recently announced by J. W. Reid, vice president in charge of sales for Mergenthaler Linotype Co. The order is for three of Linotype's Rangemaster Model 35 mixers, two Blue Streak Model 30 mixers, seven Blue Streak Comets, and approx. 80 fonts of matrices. Each of the five mixers will be equipped with the Linotype Hydraquadder. Two of the Rangemaster machines and three of the Comets are to be operating in the Detroit *News* composing room by mid-January, and the remaining machines are to be placed in operation soon after. The three Rangemaster mixers will be largely to set foodstore and classified composition, and the Model 30 mixers for setting movie ads. The Detroit *News*, one of America's great newspapers, is consistently among the leaders in advertising linage. Its pages number up to 96 daily, with weekly totals of 380 to 502 black and white pages. Its rotogravure section frequently runs to 96 tabloid pages.

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Goss Installation

THE OMAHA (NEB.) *WORLD-HERALD* will increase its press capacity 50% when its new Goss Headliner goes on edition in February. The addition of eight Headliner units with Tension Plate Lockup, two color halfdecks and one double delivery Uniflow folder with upper formers will give the *World-Herald* a total of 24 units, six color cylinders and three folders. Eighteen of the units are Headliner, the other six Goss Anti-Friction type. The new units are equipped with Goss reels and tension. Increased versatility in color combinations and a wider distribution of color pages throughout the newspaper are other major benefits resulting from the new press installation. The *World-Herald* is anticipating a large gain in full r.o.p. color linage next year, according to Production Mgr. Thomas F. Gougarty. This last year the *World-Herald* printed more than 600 advertisements in color. The heavy Y type substructures on which the Omaha *World-Herald's* new Headliner is mounted are set on a concrete foundation resting on 40 concrete-filled 56 ft. long steel casings which were pile driven into the ground.

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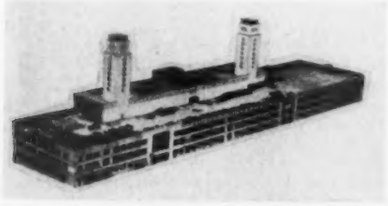
Wood Installations

STANDARD PONY AUTOPLATE—In line with its modernization policy, The Ironwood (Mich.) *Daily Globe* has ordered a new Wood Standard Pony Autoplate machine. Founded in 1919 by Linwood Noyes, past president of the American Newspaper Publishers Assoc., the *Globe* is celebrating its thirty-sixth year of publication. The paper serves the Western counties of the upper peninsula of Michigan and a large area in northeastern Wisconsin through a daily circulation of 9000 copies.

HEAVY DUTY AUTOSHAVER—The Portland (Ore.) *Journal* has ordered another Wood Heavy Duty Autoshaver for its stereotype department. Circulation of the *Journal* exceeds 200 thousand, averaging 40 pages daily, including use of r.o.p. color. Since the *Journal's* new building was erected in 1949, the paper's production equipment



View of Portland (Ore.) *Journal's* modern newspaper publishing plant building.

has been expanded to take care of increased circulation. With the addition of the new machine, the *Journal's* Stereotype department will be operating two Wood Heavy Duty Autoshavers and one Wood Standard Autoshaver, together with a Wood Automatic Autoplate Machine, and a Wood Junior Autoplate machine.

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Miehle Installations

No. 29 LETTERPRESSES—The Telegraph Press, Harrisburg, Pa.; William Haedrick & Sons, Inc., Brooklyn N. Y.; Eastman Kodak Co., Rochester, N. Y.; Seemann & Peters, Inc., Saginaw, Mich.; Redfield & Co., Omaha, Neb.

No. 29 OFFSET PRESSES—Vile-Goller Printing Co., Kansas City, Mo.; Perry Printing Co., Flint, Mich.; Jahn & Ollier Engraving Co., Chicago; Frye Printing, Inc., Springfield, Ill.; Coons Printing Co., Ferndale, Mich.; John B. Watkins Co., New York, N. Y.; Cadwallader & Johnson, Inc., Chicago; Seiler Printing Co., Mt. Joy, Pa.; Hemisphere Litho Corp., New York, N. Y.; Superior Match Co., Chicago; The Lund Press, Inc., Minneapolis, Minn.; Ralsen Grocraft Corp., New York, N. Y.; Spencer Printing Co., Richmond, Va.; Spitz Printing Co., Chicago; The Tri-Craft Press, Inc., Detroit; Whitt Printing Co., San Antonio, Tex.; Williams & Heintz Litho Corp., Washington, D. C.; The Jarvis Press, Inc., Dallas, Tex.; The Lane Press, Inc., Burlington, Vt.

No. 36 OFFSET PRESSES—Kelmscott Corporation, Aurora, Ill.; Washburn Printing Co., Inc., Charlotte, N. C.; Paramount Press of Chicago, Inc., Chicago; Gunthrop Warren Printing Co., Chicago.

No. 41 TWO-COLOR OFFSET PRESSES—Dependable Printing Co., Inc., New York, N. Y.; Gaspel Trumpet Co., Anderson, Ind.; Redfield & Co., Inc., Omaha, Neb.; Bryant Press, Inc., New York, N. Y.; Democrat Printing Co., Madison, Wis.

V-50 VERTICAL PRESSES—Schaefer Printing Co., Cleveland; John MacFarlane & Co., Inc., Lynn, Mass.; Printcraft Company, St. Louis; West Side Printing & Office Supply Co., Inc., New York, N. Y.; Forry & Hacker, Lancaster, Pa.; Goodharts Printers, Washington, D. C.; Knecht Printing & Stationery Co., Tyrone, Pa.; Berner Bros. Publishing Co., Antigo, Wis.; Benson Printing Co., Nashville, Tenn.; Neenah Printing Co., Neenah, Wis.; Cedar Rapids Federation of Labor, Cedar Rapids, Ia.; The Todd Co., Inc., Dallas, Tex.; Westminster Printing Co., Jackson Heights, N. Y.; Printrite Company, Chicago; Minot Printing Co., Minot, N. D.; Plymouth Press, Brooklyn, N. Y.; Lubbock Printing Co., Lubbock, Tex.; Marge Specialty Co., Inc., Brooklyn, N. Y.; P. H. Hanes Knitting Co., Winston-Salem, N. C., Vermillion County Star, Inc., Danville, Ill.; Gilpin Hunt & Co., Inc., Newport, Vt.; Enterprise Advertisers Service, New York, N. Y.; Allied Printing Co., Woodstock, Ill.; Bristol Printing Co., Newton, Pa.; O. K. Printing Co., Inc., Rochester, N. Y.

MISCELLANEOUS MIEHLE EQUIPMENT—No. 41 Single Color Letterpress, Davis Press, Inc., Worcester, Mass.; No. 56 Two-Color Letterpress, J. C. Dillon Co., Inc., New York, N. Y.; No. 70 Cutter & Creaser, Southern Paper Box Co., Inc., Taylorsville, N. C.; No. 76 Two-Color Rotary Letterpress, Kingsport Press, Inc., Kingsport, Tenn.

POWER COMES IN ALL SIZES!

And Challenge has all the sizes!

A complete line of industry-approved power paper cutters—in full hydraulic or semi hydraulic models—from the new 19¾" space savers all the way up to the magnificent 37" style 370 heavy-duty favorite.

Each model in this line is a power package—ready to unleash its controlled hydraulic strength to help your operators deliver a clean, precisioned stack of paper — in less time and with less effort!

Add the features of 2-hand safety starting lever . . . "easily-squared" back-gage . . . "duplex" measuring tape and you have some of the reasons why Challenge — through the years — has consistently been the favorite with plant owners and operators — everywhere

THE CHALLENGE MACHINERY CO.

Office, Factories and Show Room: Grand Haven, Mich.

Over 50 Years in Service of the Graphic Arts

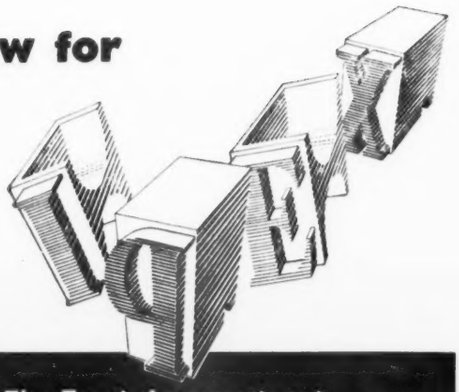
DEALERS IN ALL PRINCIPAL CITIES

Challenge

PRINTERS! make ready now for the greatest event of 1955

Whatever aspect of printing concerns you most, you will find at IPEX a wealth of new developments and an impressive array of plant, machinery and materials which embody the very latest achievements in printing progress—all readily accessible and under one roof! It has even more than this to offer you—it provides an international forum for the discovery of new ideas, for the discussion with manufacturers and suppliers throughout the world of new methods to achieve better and more economical printing.

Now is the time to make your preparations to attend this important event. Write to the organisers and state the dates during which you will be in London, so that details of accommodation and other information can be provided.



The Tenth International
PRINTING MACHINERY
and
ALLIED TRADES' EXHIBITION
OLYMPIA—LONDON
5th—16th JULY 1955

IPEX

Promoted by
THE ASSOCIATION OF BRITISH MANUFACTURERS OF PRINTERS' MACHINERY (PROPRIETARY) LTD.

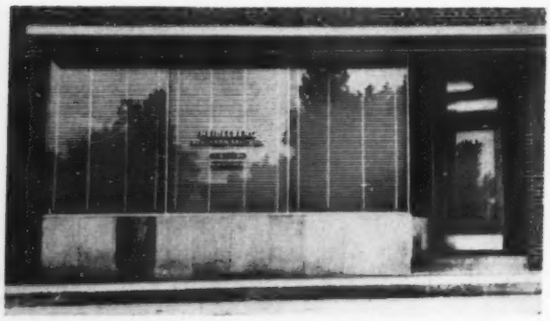
Exhibition Organisers: **F. W. BRIDGES & SONS LTD.** Grand Buildings, Trafalgar Square, London, W.C.2, England

NEWS ITEMS

New Company Formed — Williamson Midwest, Inc., supplier of rubber and plastic platemaking equipment to the midwest area, has announced the opening of its plant and offices at Bryan, O. The company is headed by Howard Vreeland, vice president and general manager, sales and technical services will be handled by Dick Moran, Chicago area; Jack Courter, Southern Ohio and Kentucky; Jack Lattmann, Texas and Southwest areas, and Vreeland, Michigan area.

Two Executive Appointments in the Miehle Printing Press & Mfg. Co. were recently announced by Carlton Mellick, vice president in charge of sales. Charles A. Harwood was named field sales manager, and F. Irving Walsh, product service manager. Harwood formerly held the position of manager of Western offset sales and is experienced in Graphic Arts sales and sales management. He is a graduate of Ohio State Univ. and Ohio Northern Law School. Walsh is a graduate engineer and has served in the engineering, installation and sales departments, and headed the technical section. He is a graduate of Princeton University.

HARWOOD WALSH



Heidelberg Has New Atlanta Quarters — Heidelberg Southern Sales Co. has completed the move of its Atlanta, Ga., branch to enlarged offices and showrooms in the building shown here, according to C. W. Sternberg, President of the firm. The new quarters are located at 1847 Cheshire Bridge Rd., N. E., Atlanta 5, Ga.

FLINT

C. M. Flint will be in charge of the printing and publishing activities of Chas. T. Main, Inc., Boston, consulting engineering organization. Prior to joining Chas. T. Main, Inc., Flint created, and for the past seven years has directed, the activity of the ANPA Mechanical Research Dept. His experience in research and development applying to printing and publishing processes will be used to augment the services which Chas. T. Main, Inc. offers in the layout and design of printing and publishing of all kinds. He will be assisted by R.F.W. Tranter, formerly mechanical superintendent of the Boston *Herald Traveler*. W. E. Wines, who was manager of the ANPA Mechanical Dept., will be available for consulting purposes. Available to Flint will be the integrated engineering and construction management organization of Chas. T. Main, Inc. It includes a staff of engineers, architects, project managers, procurement personnel, construction supervisors and supporting service personnel.

Dankert Joins Flint—Howard Flint Ink Co. has announced that Frederick J. Dankert has been appointed technical service manager. Dankert began his career as a chemist with Siemon and Elting. Later he was associated with the American Bank Note Co., New York, N. Y. For the past 30 years, he has held various technical positions in the laboratories of Fuchs and Lang Mfg. Co., and in recent years was technical service manager for this concern. Dankert will be associated with J. F. Devine, vice president of the Flint firm, in its recently opened New York office at 6404 Chrysler Bldg.

DANKERT

Richardson-Sovde Co., Inc., recently announced the appointment of Jack P. Carroll as district sales manager of their ink division. The company represents the Howard Flint Ink Co. in the Upper Midwestern States with plant and offices in Minneapolis. Carroll formerly was with Kohl & Madden Ink Co.

FITZPATRICK

Miehle Appointment—Carlton Mellick, vice president of sales, Miehle Printing Press & Mfg. Co., recently announced the appointment of Sam H. Fitzpatrick as sales service representative for the central-southern area serving Louisiana, Mississippi and Arkansas. Fitzpatrick began his career as apprentice in the pressroom of a small firm in Georgia. He moved to New Orleans in 1939 and served as pressman in the Press of H. N. Cornay becoming foreman in 1940. After serving with the U. S. Merchant Marine, he rejoined the same firm as plant superintendent until joining Miehle.

Ideal's Pacific Div. Appointment—Ideal Roller & Mfg. Co. has recently announced the appointment of Robert H. Neale as the company's Pacific division manager in California. Neale was a member of the Flying Tigers in China and later an officer in the U. S. Naval Air Force and the U. S. Army Air Force. Neale has a bachelor's degree in electrical engineering from Indiana University.

NEALE

Dr. R. H. Wilhelm has been named vice president and production manager of Charles Eneu Johnson Co., Inc. Dr. Wilhelm joined the Johnson company in 1924 as a chemist after receiving his education in Germany. He became chief chemist in 1937 and production manager in 1938.

Ideal Roller & Mfg. Co. recently appointed Merle G. Owen to travel its southern Wisconsin and northern Illinois territory and to assist Herman F. Ewell, Ideal's Milwaukee branch manager. Owen is a graduate of Knox College and was trained for his new position at the company's Chicago office and factory.

OWEN

Sun Chemical Appointment — C. A. Brattstrom, chairman of the News Ink, Foreign and Supply Group of Sun Chemical Corp., was named vice president of the corporation, its divisions and subsidiaries, at a meeting of the board of directors, it was announced recently by Ralph C. Persons, president. Brattstrom has been with Sun Chemical since 1934 and is a member of Printing House Craftsmen.

Consolidated's New Offices—It was announced recently that the Consolidated Intl. Equipment & Supply Co. opened new offices in the Printing Center Bldg. located at 1220 Maple Ave., Los Angeles. Sales and service in the West Coast area will be handled from this office. A supply of parts and materials will be carried. Exhibits of Graphic Arts equipment and supplies will be shown from time to time.

Capricorn Takes Over White's Plant—Peter A. Rice, who less than two years ago formed the Capricorn Lithography Co. as a trade shop, announced that Capricorn

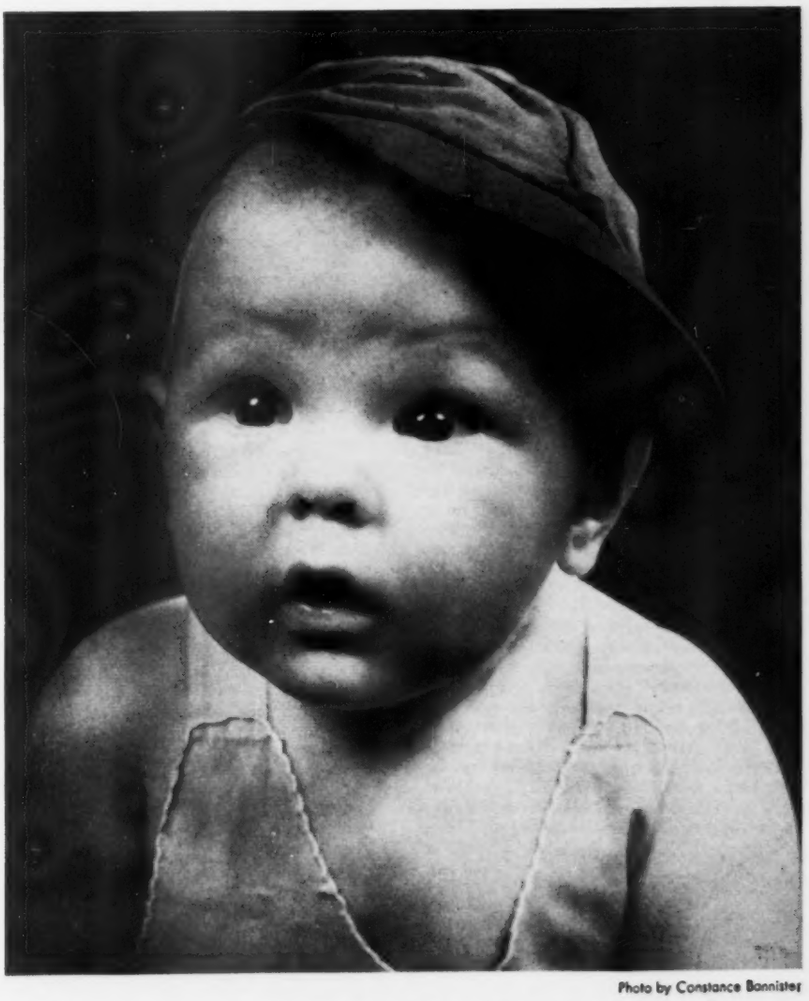


Photo by Constance Bannister

"Gee . . . only BURGESS MATS could do a job that good!"

BURGESS CELLULOSE COMPANY

Manufacturers and Distributors of Burgess Chrome and Tone-Tex Mats

Freeport, Illinois

A Laboratory Product BURGESS Chrome MATS

"The Printer is the Only Indispensable Man"

Charles Dickens (one of world's wisest men) said... "the printer is the only product of civilization necessary to the EXISTENCE of man, because withOUT him, tyrants and humbugs would have their own way." "He is a friend of intelligence and thought... of liberty... of law, indeed the friend of every man who is a friend of order." "Of all discoveries in science and art and all the wonderful progress in mechanical energy and skill the PRINTER is the ONLY PRODUCT NECESSARY TO THE EXISTENCE OF MAN."

We have the most soul-satisfying job in the world... serving the ONLY INDISPENSABLE MAN. Our appreciation has been and will be expressed by furnishing DOUBLE-DOLLAR value . . . Jet-speed . . . Jet-profit Gold-Mines. We do thank the Graphic Arts Industry for their universal support in this endeavor.

Won't you call me Collect (LOmbard 3-8164) and learn how painless a shot in your arm (profit) will be.

BE JET-WISE in '55

RUSSELL ERNEST BAUM, INC.

615 Chestnut Street Philadelphia (6) Pa.

Speed paper handling with ECONOMY ELECTRIC LIFTERS

The arms of the Economy Electric Lifter hold the paper at any height with an automatic brake. Paper can be "inched" up with electric power as each lift is transferred to cutting or sorting table. This positive control makes handling of paper easy so that bindery girls can do the work that otherwise would require a man's strength. Being portable, these Economy Electric Lifters can be moved about to serve in any part of the plant.

Economy Lifters are also very useful for handling skids or rolls of paper at loading platforms.

Write for complete specifications of this paper handling lifter. Our engineers can help with your particular problems.

ECONOMY ENGINEERING COMPANY

4501 West Lake Street, Chicago 24, Illinois

has acquired the plant of John Jay White. The new plant, in which Rice started his trade shop, houses a 41 in. by 54 in. two color; a 35 in. by 45 in. one color; a 22 in. by 34 in. one color; and two 17 in. by 22 in. one color presses. The opening of the new plant is planned for December.

Assistant Treasurer at Hoe—Gunnar M. Oleson, jr. has been appointed an assistant treasurer of R. Hoe & Co., Inc., Pres. Joseph L. Auer announces. Oleson has been with Hoe for five years and will now work in the field of systems and cost control. He served as head of engineering planning and assistant to the president before the appointment. Oleson holds a degree in Engineering and Administration from Massachusetts Institute of Technology.

Lawrence Appointment—According to Pres. H. Warren Kampf, The Mead Sales Co., 118 West First St., Dayton 2, O., George M. Lawrence has been appointed manager of sales of the Dayton sales office. The appointment became effective Nov. 5. Lawrence formerly was assistant to R. E. Pohl, who served as district sales manager until his death on Oct. 15. Lawrence's background includes a total of 35 years' experience in the paper field, both in sales work and research.

LAWRENCE

LNA News—The publication of a house organ by the Lithographers National Assoc. to keep its members informed of developments and activities on a bi-monthly basis, has been announced by Pres. Carl R. Schmidt, Schmidt Lithograph Co. The *LNA News* will be edited by Prom. Director Herb Morse. Vol. 1, No. 1 consists of four pages, 8½ in. by 11 in., offset in two colors.

Alex MacLennan, announces Sales Mgr. Rollo Lewis of Beveridge Paper Co., New Products Div., has been appointed sales representative in the states of New York, Pennsylvania and Ohio. The appointment became effective Jan. 1. He succeeds Joseph Pezdirtz who has been transferred to the West Coast Territory. MacLennan is 27 years of age. Originally, he learned the stereotype-pressman trade at the Port Arthur (Can.) *News-Chronicle*. Later he was associated with the Minot (N. D.) *News*. He left for the West where he worked at stereotyping. He then served as mechanical superintendent of the Mankato (Minn.) *Free Press* for a time. He is married and has two children.

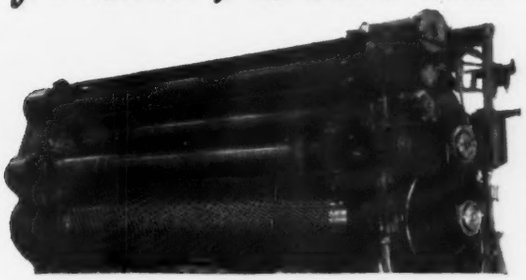
MacLENNAN

New Los Angeles Office—Palm trees form the backdrop for Harris-Seybold Co.'s new Southern Pacific District offices at 1830 W. Pico Blvd., Los Angeles. Robert G. Marquardt, Southern Pacific District manager, said this office will service Southern California, Arizona, New Mexico, Las Vegas, Nev. and El Paso, Tex. A display of Harris-Seybold equipment will be included in the building.

Cullom and Ghertner Appointment—Thornton J. Smith, formerly service manager of the Atlanta, Georgia plant of

for low cost addition of third and fourth colors

for Miehle Flat Bed Presses



Western Printing Machinery's Extra Color Letterpress Unit for Miehle flat bed presses is the answer for low cost addition of third and fourth colors.

Precision built in several sizes, it will make a three or four color press of any standard 2-color Miehle flat bed. Production specifications are the same as the press to which it's permanently attached. Synchronization is perfect. Only minor changes are required for its installation.

This unit is low in cost and requires no additional floor space as it is mounted on top of the Miehle units. Operates efficiently and economically with the Miehle.

Write for further details.

WESTERN PRINTING MACHINERY CO.
3519 N. Spaulding Avenue
Chicago 18, Illinois

wpm

"There is economy in cool operation,"

explains the stereo foreman. "Beside giving us cleaner casts, metal held at moderate temperatures does not make dross nearly as fast, so there is a saving in metal replacement.

"Yes," he adds, "it is true that Certifieds make good casts at temperatures lower than required by some other mats we have tried. That is one big reason we stay with Certifieds."

For dependable stereotyping, rely on Certified Mats

Certified DRY MATS

CERTIFIED DRY MAT CORPORATION, 9 Rockefeller Plaza, Dept. M, New York 20, N. Y.

Cullom and Ghertner Co., was appointed assistant general manager of the division, it was announced recently from the firm's headquarters in Nashville by Alven S. Ghertner, president. Smith, a native of Atlanta and former Georgia Tech student, has been employed by Cullom and Ghertner Co. for the past seven years.

Curved Electro Equipment Installed—A. E. Munyer Electrotype Co., Brooklyn, N. Y., has announced that it will have in operation by Feb. 1 equipment for producing centrifugally cast curved electrotypes for use on high speed rotary printing presses. R. E. Munyer has extended an invitation to Graphic Arts groups to visit his plant to see this equipment in operation. His company is located at 27 Sixth Ave.

Hoe's Sales and Profits—R. Hoe & Co., Inc. reports for its fiscal year ended Sept. 30, 1954 a net profit, after estimated Federal income taxes, of $1,014,085 on sales of $18,667,087, compared with a net profit of $1,149,749 and sales of $20,034,724 in the preceding fiscal year. Hoe's unfilled orders on hand as of Sept. 30, 1954, totalled $10,563,387, compared with $19,621,921 a year earlier. The company explained that during the year, the backlog of orders for defense items decreased approx. $5,878,000.

Installation of Heidelberg Press—2500 different items in five languages are printed on this Original Heidelberg automatic platen press, which was recently installed in the Humphreys Medicine Co., Inc., 100 yr. old New York drug manufacturing firm. Shown looking over the new press are (left to right) Willard Eldredge, vice president in charge of export; Howard Meister, who recently observed his 25th year as foreman of the Humphreys printing plant, and Mrs. Suzanne de Flores, company president.

Perfection Type Expansion—Perfection Type, Inc., St. Paul, Minn., announces the opening of a branch office at 611 South 11th Ave., Minneapolis, Minn. A building has been acquired to house printing machinery and composing room equipment with over 5000 sq. ft. of parking area reserved for customer parking. The project is the most ambitious in the company's 35 year history. Territories are being re-aligned and additional personnel added to the sales force. Lloyd Libby will manage the new Minneapolis office.

HENAGHAN

Michigan Litho Appointments—Wm. B. Henaghan has been appointed sales manager and in that capacity will direct the expansion of several new lines of supply and equipment for Michigan Litho Graining & Supply, Inc., as announced by Pres. Marvin R. Lohr. Henaghan was previously with Davidson Corporation, Addressograph- Multigraph, R. C. Coxhead and American Lithofold. Stan Kudrycki, a litho plate technician, has also joined Michigan Litho Graining & Supply, Inc., as technical ad-

efficient, economical handling of stereotype plates is JAMPOL business!

This JAMPOL stereotype conveyor system assures that plates will be taken automatically from the shavers and delivered to the presses without interruption . . . safely and economically and with a minimum of time. Designed and built by JAMPOL, it is only one example of the ingenuity, versatility and exacting standards with which JAMPOL can solve your newspaper handling problems. This has been JAMPOL's only business for more than a quarter century. *We invite your inquiry.*

THE JAMPOL COMPANY, INC.

General Offices and Factory

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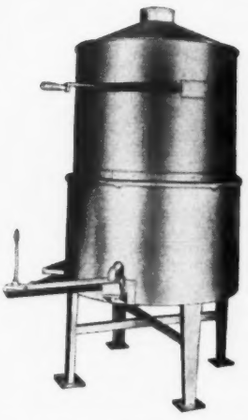
cut metal melting costs with a 'SURFACE' furnace



SAVE TIME. Melts 5,000 lbs. of lead in only 2 hours. Bottom outlet with casting trough, easily swung through large arc, facilitates pig casting. **SAVE SPACE.** Hood doors, bottom outlet and valve handles can be positioned conveniently no matter where the furnace is to be placed. **SAVE FUEL.** Simple-adjusting 'Surface' burners insure complete combustion, maximum efficiency.

Pick the right furnace for your production requirements from 5 sizes with capacities of 100-5,000 lbs. They use natural gas, manufactured gas, or LP gas. Temperatures up to 1200F.

Call your 'Surface' representative or write for Literature H54-13.

SURFACE COMBUSTION CORPORATION, TOLEDO 1, OHIO

visor to the litho trade. Kudrycki was a platemaker at Calvert Lithographing Co., and held a supervisory position in the plate department of GM Photographic for several years.

Encouraging Outlook—The Champion Paper and Fibre Co. and subsidiaries reported total income for six months, April through Sept. 1954, shows $4,692,288, equal to $2.03 a common share for the half-year period, as compared to $5,115,548 or $2.22 a share for the first six months last year. Sales and income maintained a fairly even level during the six months, while dropping slightly below last year's pattern, although "the economic outlook for the months ahead is more promising," according to Champion President Reuben B. Robertson, Jr.

Cleveland Printing Week Activity—The leading Graphic Arts organizations of Cleveland are in the forefront of 1955 Printing Week activities. Under the direction of General Chairman Edward T. Samuel, owner, Edward T. Samuel Printing Co., are a flurry of events aimed at capturing the interest of business, industry, school students and the general public. The leaders of some of the associations participating in the celebration are shown at a recent meeting. From left to right: Mr. Samuel; Carl Stahley, Cleveland Chamber of Commerce; representing the Master Printers Assoc., Joseph A. Gideon, president, J. C. Hub Mfg. Co.; Committee Co-chairman Francis Howe, S. D. Warren Paper Co.; Printing Industry of Cleveland Past Pres. Will Franklin, president, Edwards & Franklin Co.; Cleveland Litho Club Pres. William Dunlap, production manager, G-E Nela Press; and Cleveland Craftsman Club Pres. W. Donn Barber, owner, Adcraft Printing Co.

FAELTEN

Heidelberg Appointment — William K. Maxon, general sales manager of Heidelberg Eastern, Inc., announced the promotion of Carl Faelten to the position of field sales manager for Heidelberg's Northeastern Territories. Faelten has been with Heidelberg Eastern for three years and will now supervise field sales activities for New York and all of New England.

J. A. Ackermann has been appointed chief engineer of The Elwell-Parker Electric Co. according to an announcement by Sheldon K. Towson, president and general manager of the company. Ackermann, who succeeds J. C. Erickson who resigned due to ill health, has been associated with Elwell-Parker since 1923.

ACKERMANN

R. L. Polk & Co., recently transferred Detroit production operations of that company's Direct Mail Advertising Div. from four downtown buildings and consolidated them in a seven story plant containing nearly 265,000 sq. ft. of floor space, an-

CUT COSTS — PRINT WITH
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MAKE THEM IN THE
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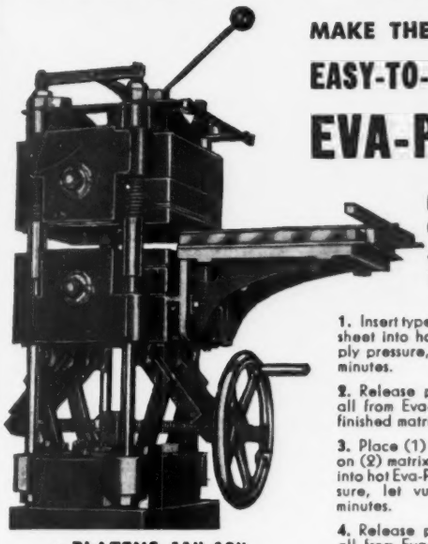

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Cost Less Than
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10"x10" Plate

1. Insert type form and plastic sheet into hot Eva-Press, apply pressure, let cure for 10 minutes.
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There must be a reason, and it's simply one of quality, why so many newspapers through the years have been consistently using Wood Dry Mats.

WOOD FLONG
CORPORATION
HOOSICK FALLS, N. Y.

WOOD DRY MATS
ALWAYS UNIFORM

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nounced Pres. Ralph L. Polk recently. Increased loading facilities, enclosed docks and direct railroad connections are available at the new location. Headquarters and sales offices of the Polk organization remain in the firm's building at 431 Howard St., Detroit.

WADDELL

Promotion at Harris-Seybold — Russell B. Waddell has been promoted to works manager of the Chemical Division of Harris-Seybold Co., according to an announcement by Director of Mfg. Richard W. Helmig. Waddell, formerly chemical product development engineer, will have charge of manufacturing, quality control and engineering development operations at the Harris-Seybold lithographic chemical plant. Waddell has been with the company six years. A graduate of Tufts College, Waddell received his master's degree in chemical engineering at Brooklyn Polytechnic Institute.

E. G. Ryan and Co. has announced the appointment of John J. Gordon as sales manager. Gordon comes to Ryan and Co. from the Addressograph-Multigraph Corp., and has fifteen years' experience in the printing industry. E. G. Ryan and Co. are dealers in new and used printing equipment and service in the Chicago area and have recently been appointed sales and service distributors for the Davidson Corporation.

HERONEN

Consolidated Western States Appointment — Benjamin Sugarman, president of Consolidated Intl. Equipment and Supply Co., recently announced the appointment of E. J. Heronen as district manager in charge of sales and service in the eleven western states, handling the Consolidated line of Graphic Arts equipment. Heronen has spent 15 years with Fairchild Camera and Instrument Corp. as its district manager for sales and service.

Pacific Coast Purchase—Stephen W. Johnson, sr., president of Johnson Mat & Electrotype Co., recently announced the purchase by himself and his two sons of the entire stock of the Filmer Bros. Electrotype Co. The two units will continue operations at their present locations. Two affiliate Filmer Companies, the Cooperative Bindery Co., doing business as Filmer Printing and Bookbinding Co., and Rayjack Co., doing business as Filmer Bros. Typesetting Co., are not included in the transaction stated W. Coy Filmer, president. Major executives of Johnson Mat Co. will continue; Pres. Johnson, Stephen W. Johnson, jr., vice president and Paul Johnson, secretary.

Interchemical Scholarships — Award of $1000 in Interchemical Corporation scholarships to two seniors and two juniors at Lehigh University was announced recently by Dr. Wray H. Congdon, dean of students. Scholarships of $250 each for the current academic year will go to Robert B. Ring, Newark, N. J., engineering physics senior; Joachim Schult, a native of Germany now

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THE NEW
LOW-COST
MAGNACRAFT
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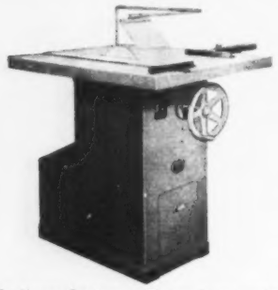

Check these features: Extra large table 28x36" . . . Powerful 2 HP motor . . . Double V-belt drive . . . Heavy base, no vibration . . . Straight edge and side gauge . . . positive elevating mechanism . . . 10" dia. saw blade . . . Rugged ball bearing saw mount . . . Four-wheel chip buggy. Write for prices.

NOLAN CORP.

ROME, NEW YORK

Builders of Quality Printing Machinery

residing in Bethlehem, chemistry senior; Daniel P. Cannon, Allentown, and Walter J. Messner, Washington, N. J., both juniors majoring in chemical engineering. Interchemical set up a program of college scholarships last spring to aid science students in their junior and senior years.

Advertising Typographers Assoc. — Carl H. Ford, president of The J. W. Ford Co., was re-elected president of the Advertising Typographers Assoc. of America, Inc. at the annual convention held recently. Other officers, also re-elected, are: Vice Pres., Walter T. Armstrong, president of Walter T. Armstrong, Inc., Philadelphia; Treas., Mrs. E. W. Shaefer, president of Tri-Arts Press, Inc., New York, N. Y. Glenn C. Compton is executive secretary. New directors elected were Robert Schmidt, Frederick W. Schmidt, Inc., New York, N. Y.; Claire J. Mahoney of Claire J. Mahoney, Kalamazoo, Mich.; and T. L. Jaggars, Jaggars-Chiles-Stovall, Inc., Dallas. Discussions of costs, production techniques, and public and customer relations were included in the program for the advertising typographers.

Equipment & Supplies

(Continued from Page 27)

plate itself. Rules and film bar are positioned by hand within the vacuum and are movable in either direction for any number of steps within the capacity of the plate. It was explained that only one negative per color is required which can be stepped in either direction. Adjustable light-tight rubberized fabric curtains eliminate necessity for layout sheets.

In the illustration, the operator is shown aligning the vertical rule with the base rule. There are four operating controls as follows: Vacuum gauge; release lever for the frame (to allow frame to be swung into position for arc lamp exposure); vacuum switch, and a timer for the arc lamp. Width of the cabinet is 59¼ in., by 43½ in. deep, by working height of 38 in. For more details, please mention PEE No. 377 in your request.

Foster Magazine Racks

Magazine racks for Linotype and Intertype machines have been introduced by Foster Mfg. Co. Linotype magazine racks

feature extended rails for insertion and removal of magazines which slide on smooth surfaces with reinforced dividers. Intertype magazine models are fitted with endless belts operating over rollers. Capacities for both range through 7 full magazines on one level, 12 full magazines on one level, 7 full and 7 splits on two levels, 12 full and 12 splits on two levels, and 24 splits on two levels. The latter type and the one level models each is supplied with a shelf in addition. The Linotype and Intertype racks are constructed of reinforced angle iron and steel. For further information, please mention PEE No. 384 in your request.

BOOTH'S ZINK CUT CEMENT

BEST for mounting cuts and solidifying type elements for standing ads. It mounts cuts quickly and holds them tighter. Used in printing plants all over the country. Get your order in now for a supply necessary for your needs.

Prices: $1.00 per tube, $7.50 per dozen in the United States.

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2855 Scarboro Road

Cleveland Heights, Ohio

Phone: FAirmount 1-2384

Base for Kodalith Ortho Film

Kodak's high contrast process emulsion for use in the preparation of full-color plates or other applications requiring high dimensional stability is available on a 0.005 in. base of extruded polystyrene, Eastman Kodak Co. has announced. The film will be known as Kodalith Ortho PB Film, and

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STOP STATIC ELECTRICITY
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GUARANTEED!
. . . USED REGULARLY IN THE LARGEST PLANTS IN THE NATION
$3.00 per can $30.00 per case
Just Press Button and Spray
STATIKIL 1220 WEST 6th ST. • CLEVELAND 13, OHIO
STATIKIL — A DIVISION OF THE J. E. DOYLE CO. — Established 1914

is said to be three times as dimensionally stable as a cellulose ester film. Dimensional change is rated at not more than 0.02% for a 10% change in relative humidity. Any change that does occur is the same in all directions, states the company. For more details, please mention PEE No. 374 in your request.

Pre-sensitized Offset Plate

A. B. Dick Co. announces it has developed a pre-sensitized aluminum offset plate which will effectively reproduce type and line drawings copy up to 5000 imp., and halftone copy up to 2500 imp. It is designed for use on all standard offset duplicators. The plate may be filed and re-run later. A claim made for the plate is that copy quality is not affected by variations of several minutes over the recommended plate exposure time. When not more than 1000 imp. of linework or 500 imp. of halftone copy are needed, two steps prepare the plate for use. The plate first is exposed. It is then de-sensitized by wiping with a special fluid. A third step, lacquering the plate, permits the maximum number of impressions. For more details, please mention PEE No. 382 in your request.

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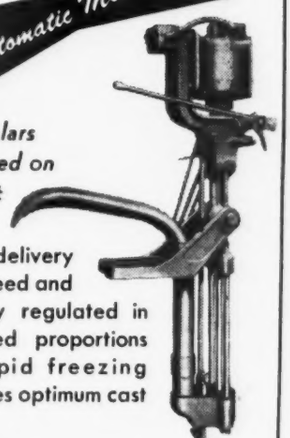
with
Automatic Metal Pump

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Power delivery with speed and quantity regulated in balanced proportions for rapid freezing produces optimum cast results.
INTERNATIONAL NEWSPAPER SUPPLY CORPORATION
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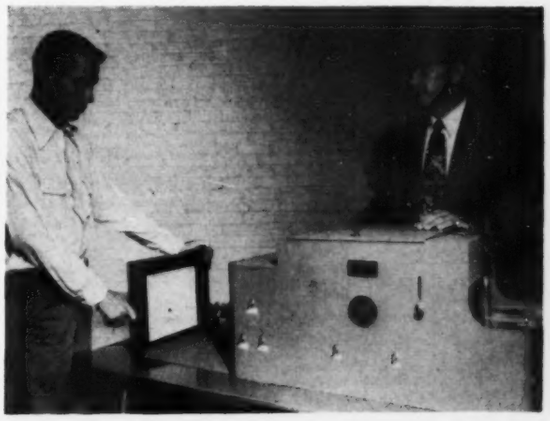
Print-N-Etch Engraver — With Print-N-Etch equipment, it is stated by Print-N-Etch Div. of Richardson-Sovde Co., Inc., a zinc or magnesium halftone can be produced ready for the press within 20 min. from the time a photograph is received. Basically, explains sponsor, Print-N-Etch is a contact method of producing screened negatives and developed plates. Etching time on zinc is stated to be 4½ min., and a third of that time on magnesium. Inking, powdering or scrubbing is not required. Plate size is limited to 7 in. by 11 in.



Combinations of several column widths of plates can be processed at the same time since several photos can be shot on the same negative. Volume production can be obtained by use of a separate printing unit like the one in the machine itself. The Print-N-Etch machine is 32 in. long, 14 in. wide and 15 in. high. It might be enclosed together with developing and fixing trays and sink in a 4 ft. by 4 ft. space.

Sponsor states the dots are pyramidal in shape and of even depth—the same in highlights and middletones with no undercut. Halftone screens of 60, 65, 85 and 120 line are available.

Pre-sensitized plates are furnished. They can be stored for a considerable period of time before using. Making the screened negative is the only darkroom operation. For more details, please mention PEE No. 381 in your request.

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Aerosols, Dry Powder, 22, Aug.
Agitator for Verticals, Ink, 14, Sept.
Agitator, Ink, 57, Jan.
Anti-Skinning Agent for Ink, 6, Feb.
Apron, Laboratory, 68, Apr.
Arc Lamp, Motor Driven Camera, 93, Aug.

Balance, Ohaus, 12, May
Balance, Triple Beam, 26, Dec.
Banding Machine, Automatic, 19, Nov.
Bar, 24 Volt Tug, 24, Apr.
Bendix Ultra-Viscoson, 96, Aug.
Blanket, Offset Press, 63, Nov.
Blower, Portable Electric, 70, Apr.
Bodoni Faces, Combines, 32, Aug.
Book Rounder and Backer, 64, Oct.
Booster, Unit, 20, May
Bronzer, American, 18, May

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Humidity Equalizer, Improved, 88, Aug.

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P. E. E. REPRESENTATIVES

WILLIAM L. OSBORN, Eastern Advertising Representative, 1712 Grand Central Terminal, New York 17, N. Y. Phone MUrray Hill 6-5980.

MELBURN O. SIMMONS, Mid-West Advertising Representative, 333 North Michigan Ave., Chicago 11, Ill. Phone DEarborn 2-6467.

GEORGE GELL, Central District Advertising Representative, 1276 West Third St., Cleveland 13, Ohio. Phone PRospect 1-0088

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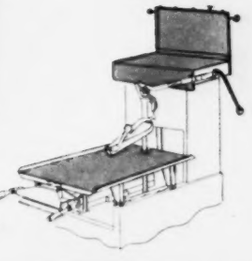

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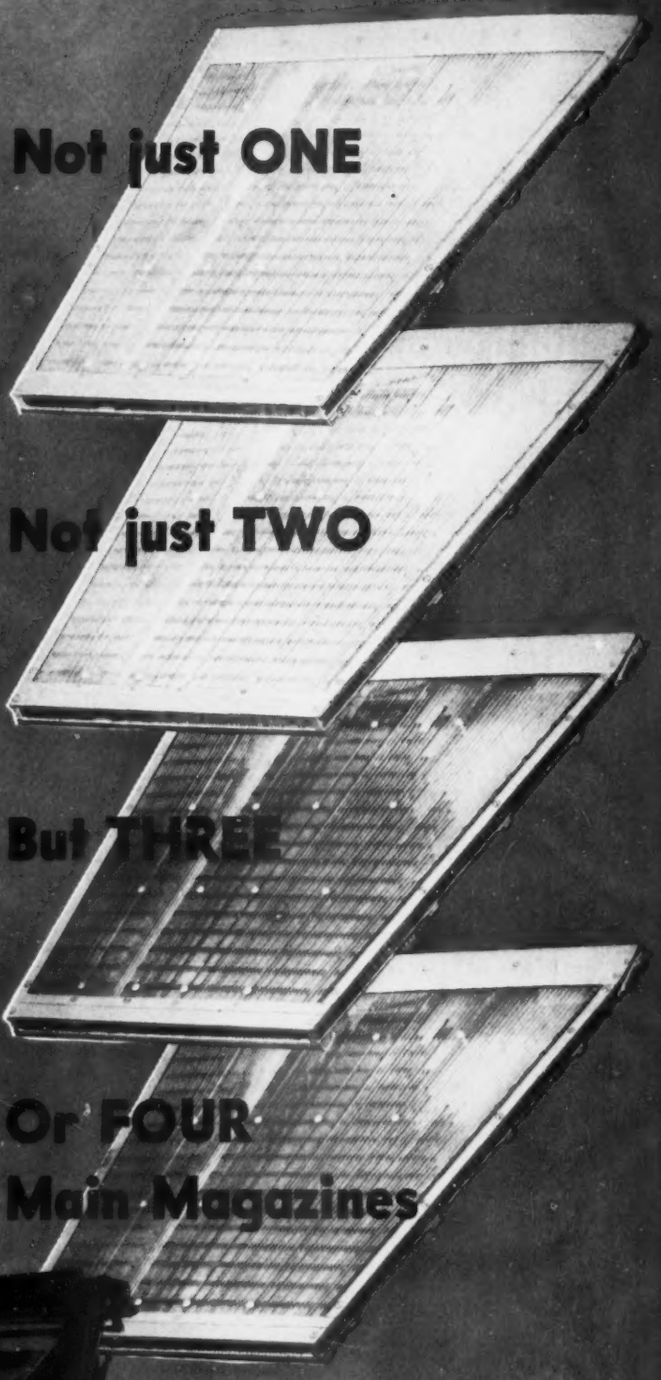

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